

98028

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: JANIS DOTE Examiner #: 68274 Date: 7/2/03
 Art Unit: 1756 Phone Number 308-3625 Serial Number: 101082089
 Mail Box and Bldg/Room Location: C P3 - 9 D27 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: DRY COLOR TONER

Inventors (please provide full names): HITOSHI TAKAYANAGI, TAKASHI ITO,
KAKAY KATSUYUKI OGURA

Earliest Priority Filing Date: 3/01/01

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued/patent numbers) along with the appropriate serial number.

Please search for a spherical toner
 comprising a pigment as shown in the
 attached claim 1

US 2002 0172280

147-14-8

0280-65-1

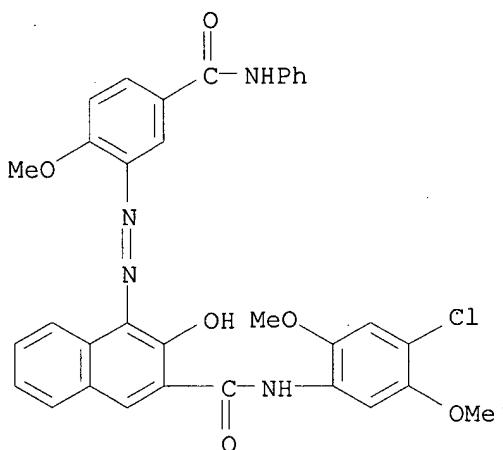
SC 147-14-8
 0280-65-1
 7/31/03

STAFF USE ONLY		Type of Search	Vendors and cost where applicable
Searcher:	<u>J Calme</u>	NA Sequence (#)	<u>2 hr. STN</u> <input checked="" type="checkbox"/> \$ 359.71
Searcher Phone #:		AA Sequence (#)	Dialog _____
Searcher Location:		Structure (#)	Questel/Orbit _____
Date Searcher Picked Up:	<u>7/3/03</u>	Bibliographic	Dr.Link _____
Date Completed:	<u>7/3/03</u>	Litigation	Lexis/Nexis _____
Searcher Prep & Review Time:	<u>120</u>	Fulltext	Sequence Systems _____
Clerical Prep Time:		Patent Family	WWW/Internet _____
Online Time:	<u>120</u>	Other	Other (specify) _____

~~G. Yerma~~

~~00000002~~

07/03/2003

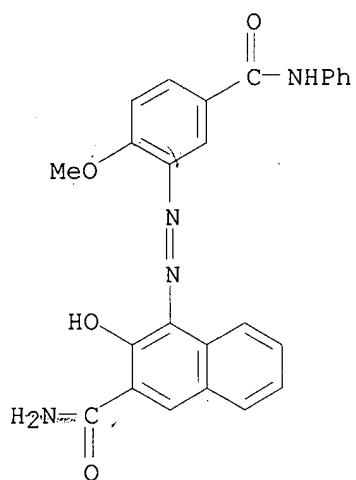


← Authors
Record

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1

L3 2 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
[(phenylamino)carbonyl]phenyl]azo]- (9CI)
MF C25 H20 N4 O4



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

=> file reg

FILE 'REGISTRY' ENTERED AT 13:50:31 ON 03 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 2 JUL 2003 HIGHEST RN 541497-70-5
DICTIONARY FILE UPDATES: 2 JUL 2003 HIGHEST RN 541497-70-5

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2003

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

=> d his

(FILE 'HOME' ENTERED AT 13:23:57 ON 03 JUL 2003)

FILE 'LREGISTRY' ENTERED AT 13:24:02 ON 03 JUL 2003
ACTIVATE DELETE/L

L1 STR

L2 STR L1

FILE 'REGISTRY' ENTERED AT 13:26:30 ON 03 JUL 2003
L3 11 S L2
L4 STR L2
L5 11 S L4
L6 STR L4

FILE 'REGISTRY' ENTERED AT 13:29:14 ON 03 JUL 2003
L7 11 S L6
L8 175 S L6 FULL
SAVE L8 DOTE089/A *parent*

FILE 'HCA' ENTERED AT 13:29:54 ON 03 JUL 2003
L9 283 S L8
E US20020172880/PN *author's record*.
L10 1 S E3
SEL L10 RN

FILE 'REGISTRY' ENTERED AT 13:30:41 ON 03 JUL 2003
L11 4 S E1-E4
L12 2 S L11 AND 1/NC *← authors* (1/NC = 1 number components)
ie. not polymer -

FILE 'HCA' ENTERED AT 13:31:03 ON 03 JUL 2003
L13 127 S L12

Janis Dote

10/082,089

07/03/2003

FILE 'REGISTRY' ENTERED AT 13:31:15 ON 03 JUL 2003
L14 171 S L8 AND 0-1/NC

FILE 'HCA' ENTERED AT 13:37:00 ON 03 JUL 2003
L15 532778 S CIRCUL? OR ROUND? OR RING(W)SHAPE? OR ANNULAR? OR LOOP? OR OV
L16 63840 S SPER?
L17 593097 S L15 OR L16
L18 27909 S TONER?
L19 184477 S PIGMENT?
L20 208768 S L19 OR L18
L21 176 S L17(2N)L20
L22 1 S L9 AND L21
L23 244 S L9 AND L20
L24 180 S L23 AND 1907-2000/PY
E TONER+ALL/CV
E TONERS+ALL/CV
L25 6160 S E2-E3
E PIGMENTS/CV
E PIGMENTS+ALL/CV
L26 11669 S E2
L27 17583 S L25 OR L26
L28 84 S L9 AND L27
L29 39 S L9 AND L25
L30 ANALYZE L9 1-283 RN : 2824 TERMS

FILE 'REGISTRY' ENTERED AT 13:44:27 ON 03 JUL 2003
E 147-14-8/RN
L31 1 S E3
L32 175 S L8 NOT 147-14-8
L33 0 S L8 AND 147-14-8
L34 1 S L9 AND 5280-68-2
L35 174 S L9 NOT L34

FILE 'HCA' ENTERED AT 13:47:22 ON 03 JUL 2003
L36 212 S L35
L37 188 S L36 AND L20
L38 30 S L35 AND L25
L39 8 S L38 AND 1907-2000/PY
L40 22 S L38 NOT L39
L41 27 S L13 AND L25
L42 14 S L41 NOT L40
L43 9 S L42 AND 1907-2000/PY
L44 STR L6

FILE 'REGISTRY' ENTERED AT 14:07:03 ON 03 JUL 2003
L45 10 SEA SUB=L8 SSS SAM L44
D QUE STAT L45
STR L44
L46 0 SEA SUB=L8 SSS SAM L46
D QUE STAT L47
STR L46
L48 5 SEA SUB=L8 SSS SAM L48
L49 133 SEA SUB=L8 SSS FUL L48
SAVE L50 DOTE089A/A
L51 131 SEA ABB=ON PLU=ON L50 NOT L12

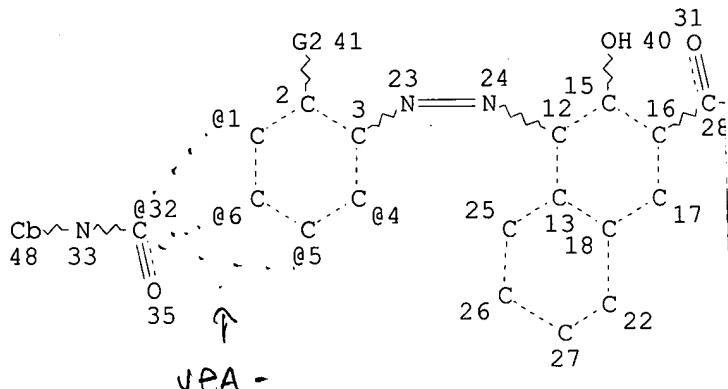
FILE 'HCA' ENTERED AT 14:14:07 ON 03 JUL 2003
L52 192 SEA ABB=ON PLU=ON L51

FILE 'REGISTRY' ENTERED AT 14:14:43 ON 03 JUL 2003
L53 128 SEA ABB=ON PLU=ON L51 AND 1/NC

FILE 'HCA' ENTERED AT 14:14:57 ON 03 JUL 2003
L54 189 SEA ABB=ON PLU=ON L53
L55 28 SEA ABB=ON PLU=ON L54 AND L25
L56 3 SEA ABB=ON PLU=ON L55 NOT (L40 OR L43)
L57 3 SEA ABB=ON PLU=ON L56 AND 1907-2001/PY

=> d que stat L8

L6 STR



DIALOG

A THOMSON COMPANY

Janis,
This was the "parent" structure. I obtained 175 structures (registry numbers) that were "crossed over" to Chem. Abstracts (HCA)

O~Ak @42 43 Ak~O~Ak @45 46 47

VAR G2=42/45
VPA 32-1/6/5/4 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 48
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE
L8 175 SEA FILE=REGISTRY SSS FUL L6

100.0% PROCESSED 21689 ITERATIONS
SEARCH TIME: 00.00.02

DIALOG

A THOMSON COMPANY

I performed another sub-structure search (pg. 61-62) & obtained an additional 3 records (printed at end print out). I try to keep answer sets as small as possible for examiners.

=> file hca

FILE 'HCA' ENTERED AT 13:51:03 ON 03 JUL 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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FILE COVERS 1907 - 26 Jun 2003 VOL 139 ISS 1
FILE LAST UPDATED: 26 Jun 2003 (20030626/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d L40 1-22 cbib abs hitind hitstr

L40 ANSWER 1 OF 22 HCA COPYRIGHT 2003 ACS
138:376369 Color toner kit containing specific colorants and method for image formation using the same. Ono, Manabu; Katsuta, Yasushi; Tosaka, Emi; Ito, Masanori; Teyama, Koichi (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2003140396 A2 20030514, 25 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 2001-338885 20011105.

GI

npa

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title kit consists of developers for yellow, magenta, and cyan colors and is made of toner particles contg. a binder resin, a colorant, and wax and inorg. fine powder, wherein the colorant for yellow developer contains condensed azo dye I (A = 1,4-phenylene with 2,5 substituent of H, halo, alkyl, etc.; B = Ph with 1,2,6-substituent of H, alkyl, alkoxy, etc.) and a mono-azo pigment chosen from C. I. Solvent Yellow, 9, 17, 24, 31, 35, 58, 93, 100, 102, 103, 105, 112, 162, 163, C. I. Dispers Yellow 42, 64, 82, 160, 201, and 224 and contains 1-20 % of the pigment with 25:75-75:25 of (condensed azo dye)/(monoazo pigment), wherein the magenta developer contains pigment II (X1-2 = H, alkyl, alkoxy, halo) and mono azo pigment III(R1 = OH, NH₂, 2,3,4,5-substituted aniline, etc.; R2-4 = H, halo, alkyl, alkoxy, etc.) and 25:75-75:25 of (condensed azo dye)/(monoazo pigment), and wherein cyan developer contains a phthalocyanine deriv. pigment with 1-10 % content. The toner provides high quality images of reprodn. of color and fine lines for long time.

IC ICM G03G009-09
ICS G03G009-08; G03G009-087; G03G015-01; G03G015-20

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other

Reprographic Processes)

IT **Electrographic toners**

Electrophotographic toners

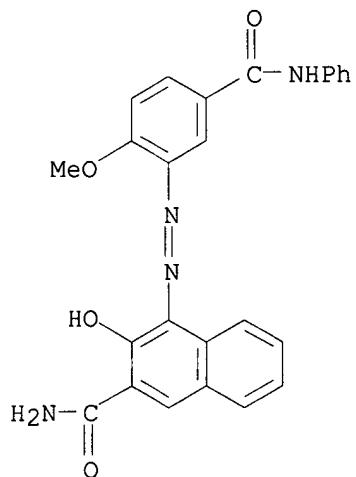
 Pigments, nonbiological
 (color toners contg. specific colorants)

IT 147-14-8, C.I. Pigment Blue 15:3 980-26-7, C.I. Pigment Red 122
 1047-16-1, C.I. Pigment Violet 19 **56396-10-2**, C.I. Pigment Red
 150 **67990-05-0**, C.I. Pigment Red 269 99402-80-9, C.I. Pigment
 Red 184 109945-01-9, C.I. Pigment Red 159
 RL: TEM (Technical or engineered material use); USES (Uses)
 (colorants in developers)

IT **56396-10-2**, C.I. Pigment Red 150 **67990-05-0**, C.I.
 Pigment Red 269
 RL: TEM (Technical or engineered material use); USES (Uses)
 (colorants in developers)

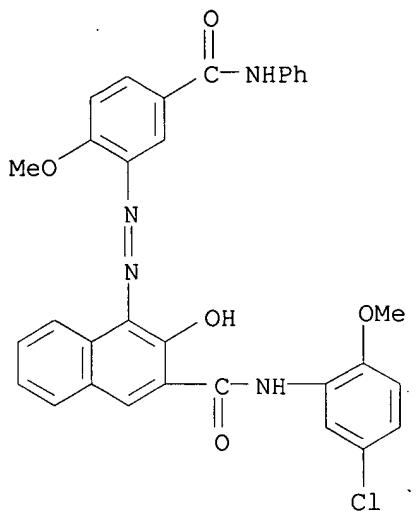
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
 [(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 2 OF 22 HCA COPYRIGHT 2003 ACS

138:339703 Preparation of azo colorants in microreactors and their use in electrophotographic toners and developers, powder coatings, ink jet inks and electronic medias. Baur, Ruediger; Macholdt, Hans-Tobias; Nickel, Uwe; Unverdorben, Leonhard; Wille, Christian (Clariant Finance (BVI) Limited, Switz.). U.S. Pat. Appl. Publ. US 2003083410 A1 ~~20030501~~, 13 npa pp., Cont.-in-part of U.S. 6,469,147. (English). CODEN: USXXCO.
APPLICATION: US 2002-238365 20020910. PRIORITY: DE 2000-10005550 20000209; DE 2000-10040100 20000816; US 2001-780218 20010209.

AB A process for prep. a colored electrophotog. toner or developer, powder coating or ink jet ink, comprises the steps of conducting one or more of a) diazotization of arom. or heteroaromat. amines, b) azo coupling, c) laking and d) metal complexing in a microreactor to give an azo colorant, and incorporating the azo colorant into the electrophotog. toner or developer, powder coating or ink jet ink base.

IC ICM C09D011-00
ICS C08K005-23

NCL 524190000; 106031510

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 42, 74

IT **Electrophotographic toners**

(prepn. of azo colorants in microreactors)

IT 1103-38-4, C.I. Pigment Red 49:1 2425-85-6, C.I. Pigment Red 3
2512-29-0, C.I. Pigment Yellow 1 2786-76-7, C.I. Pigment Red 170
2814-77-9, C.I. Pigment Red 4 3468-63-1, C.I. Pigment Orange 5
4531-49-1, C.I. Pigment Yellow 17 5102-83-0, C.I. Pigment Yellow 13
5280-66-0, C.I. Pigment Red 48:4 5280-68-2, C.I. Pigment Red 146
5280-78-4, C.I. Pigment Red 144 5281-04-9, C.I. Pigment Red 57:1
5468-75-7, C.I. Pigment Yellow 14 5567-15-7, C.I. Pigment Yellow 83
5979-28-2, C.I. Pigment Yellow 16 6358-31-2, C.I. Pigment Yellow 74
6358-85-6, C.I. Pigment Yellow 12 6410-30-6, C.I. Pigment Red 8
6410-32-8, C.I. Pigment Red 12 6448-95-9, C.I. Pigment Red 22
6471-50-7, C.I. Pigment Red 14 6486-23-3, C.I. Pigment Yellow 3
6528-34-3, C.I. Pigment Yellow 65 6535-46-2, C.I. Pigment Red 112
6985-92-8, C.I. Pigment Red 175 6985-95-1, C.I. Pigment Red 171
6992-11-6, C.I. Pigment Brown 25 7023-61-2, C.I. Pigment Red 48:2
7585-41-3, C.I. Pigment Red 48:1 12225-06-8, C.I. Pigment Red

176 12225-08-0, C.I. Pigment Violet 32 12225-18-2, C.I. Pigment Yellow
 97 12236-62-3, C.I. Pigment Orange 36 12236-64-5, C.I. Pigment Orange
 38 12238-31-2, C.I. Pigment Red 52:2 13515-40-7, C.I. Pigment Yellow
 73 15782-05-5, C.I. Pigment Red 48:3 15793-73-4, C.I. Pigment Orange
 34 15993-42-7, C.I. Pigment Yellow 111 17852-99-2, C.I. Pigment Red
 52:1 22094-93-5, C.I. Pigment Yellow 81 29920-31-8, C.I. Pigment
 Yellow 120 31778-10-6, C.I. Pigment Red 208 31837-42-0, C.I. Pigment
 Yellow 151 35636-63-6, C.I. Pigment Yellow 175 36968-27-1, C.I.
 Pigment Red 266 40618-31-3, C.I. Pigment Red 214 43035-18-3, C.I.
 Pigment Red 247 51920-12-8, C.I. Pigment Red 185 52238-92-3, C.I.
 Pigment Red 242 52320-66-8, C.I. Pigment Yellow 75 52846-56-7, C.I.
 Pigment Orange 62 **59487-23-9**, C.I. Pigment Red 187
61847-48-1, C.I. Pigment Red 188 65212-77-3, C.I. Pigment Yellow
 183 67990-35-6, C.I. Pigment Red 53:2 68134-22-5, C.I. Pigment Yellow
 154 **68227-78-1**, C.I. Pigment Red 147 68516-73-4, C.I. Pigment
 Yellow 155 68610-86-6, C.I. Pigment Yellow 127 71799-07-0, C.I.
 Pigment Red 137 73263-40-8, C.I. Pigment Red 53:3 74441-05-7, C.I.
 Pigment Yellow 181 77804-81-0, C.I. Pigment Yellow 180 78952-72-4,
 C.I. Pigment Yellow 174 79102-65-1, C.I. Pigment Red 256 82199-12-0,
 C.I. Pigment Yellow 194 85776-13-2, C.I. Pigment Red 253 90268-23-8,
 C.I. Pigment Yellow 126 90268-24-9, C.I. Pigment Yellow 176
 99402-80-9, C.I. Pigment Red 184 384329-80-0, C.I. Pigment Orange 72
 446245-60-9, C.I. Pigment Red 60:1 516493-10-0, Pigment Yellow 198
 516493-26-8, Pigment Orange 74

RL: TEM (Technical or engineered material use); USES (Uses)
(prepn. of azo colorants in microreactors)

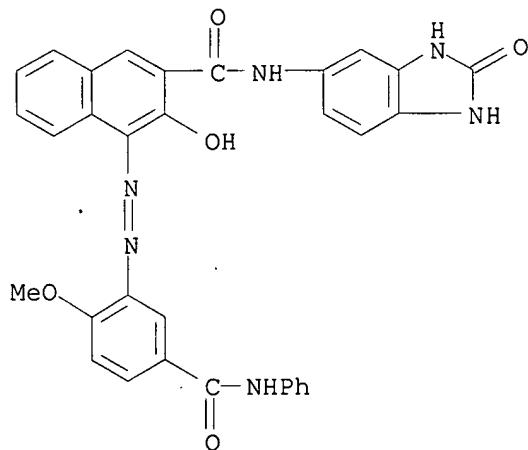
IT 12225-06-8, C.I. Pigment Red 176 **59487-23-9**, C.I.
Pigment Red 187 **61847-48-1**, C.I. Pigment Red 188

68227-78-1, C.I. Pigment Red 147

RL: TEM (Technical or engineered material use); USES (Uses)
(prepn. of azo colorants in microreactors)

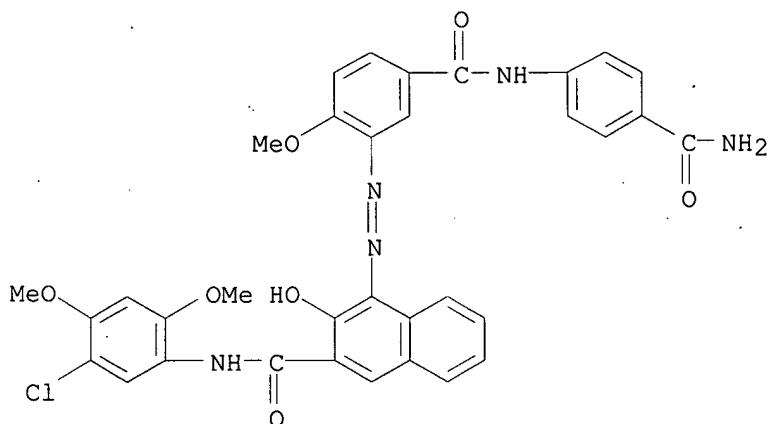
RN 12225-06-8 HCA

CN 2-Naphthalenecarboxamide, N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

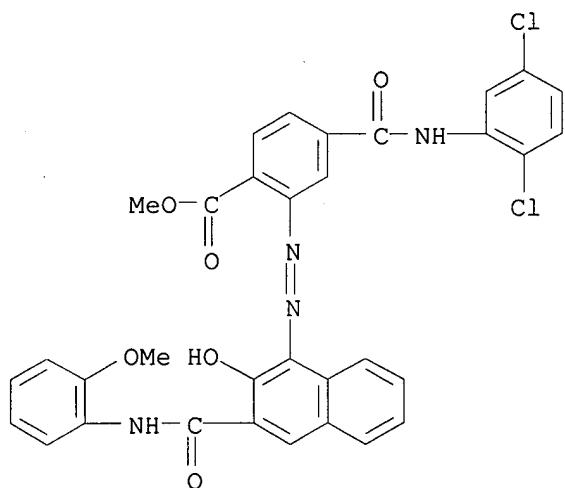


RN 59487-23-9 HCA

CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI)
(CA INDEX NAME)

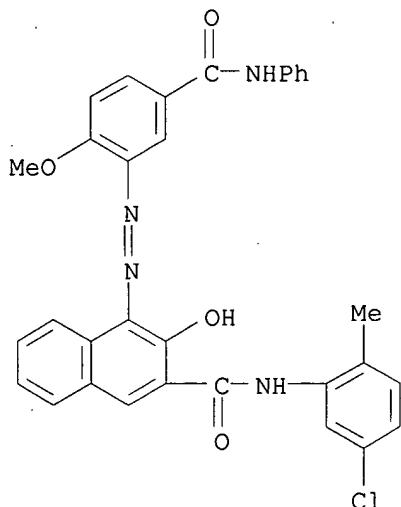


RN 61847-48-1 HCA

CN Benzoic acid, 4-[[[(2,5-dichlorophenyl)amino]carbonyl]-2-[[2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-, methyl ester (9CI)
(CA INDEX NAME)

RN 68227-78-1 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 3 OF 22 HCA COPYRIGHT 2003 ACS

138:63787 Method and apparatus for full-color electrophotographic image formation using yellow, magenta, cyan, and black toners. Kaya, Takaaki; Kamibayashi, Makoto; Mikuriya, Hiroshi; Kondo, Katsumi; Iida, Iku; Kamitaki, Takaaki (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002372809 A2 20021226, 46 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-179612 20010614.

npa

AB The invention relates to formation of high-quality full-color images using amorphous Si photoconductors under low elec. potential. The images are formed by 4-step electrophotog. printing using different nonmagnetic neg. toners (yellow, magenta, cyan, and black) having wt. av. particle size 0.4-10.0 .mu.m and having tinting power (detd. from color d. by 1-time fixing of toners under 0.5 mg/cm² unfixed toners) of 1.0-1.8 for yellow, magenta, and cyan with their max. different 0-0.5 and of 0.5-1.5 for black. Full-color electrophotog. app. with 4 different amorphous Si photoconductors (for 4 different toners), having diam. 20-80 mm and showing 300-340 V (as abs. value) developing voltage, and conditions for their operation is also claimed.

IC ICM G03G009-09

ICS G03G005-08; G03G009-083; G03G009-087; G03G009-097; G03G015-00; G03G015-01; G03G015-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(full-color electrophotog. image formation app. with amorphous silicon photoreceptors and using nonmagnetic neg. color and black toners)

IT 980-26-7, C.I. Pigment Red 122 5280-68-2, C.I. Pigment Red 146
5281-04-9, C.I. Pigment Red 57:1 6410-41-9, C.I. Pigment Red 5
6448-96-0, C.I. Pigment Red 31 7023-61-2, C.I. Pigment Red 48:2
7538-59-2, C.I. Pigment Red 58:2 12014-93-6, C.I. Pigment Red 265
51920-12-8, C.I. Pigment Red 185 **56396-10-2**, C.I. Pigment Red
150 **59487-23-9**, C.I. Pigment Red 187 68016-05-7, C.I. Pigment
Red 245 **68227-78-1**, C.I. Pigment Red 147 99402-80-9, C.I.
Pigment Red 184 140114-63-2, C.I. Pigment Red 238

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

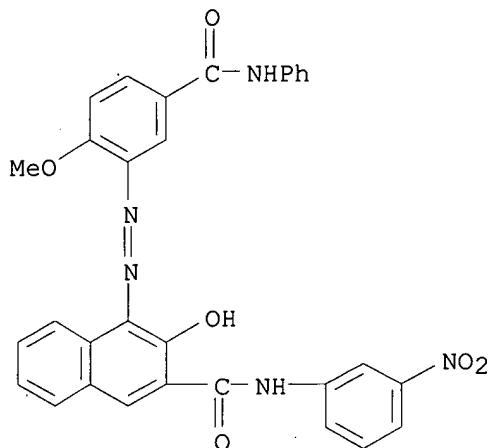
(nonmagnetic red toner; full-color electrophotog. image formation app. with amorphous silicon photoreceptors and using nonmagnetic neg. color

and black toners)

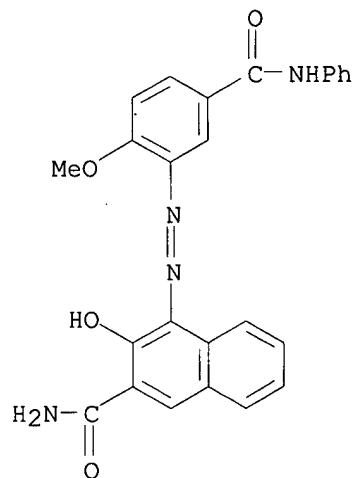
IT 6448-96-0, C.I. Pigment Red 31 56396-10-2, C.I. Pigment Red 150 59487-23-9, C.I. Pigment Red 187 68227-78-1,
C.I. Pigment Red 147
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(nonmagnetic red toner; full-color electrophotog. image formation app.
with amorphous silicon photoreceptors and using nonmagnetic neg. color
and black toners)

RN 6448-96-0 HCA

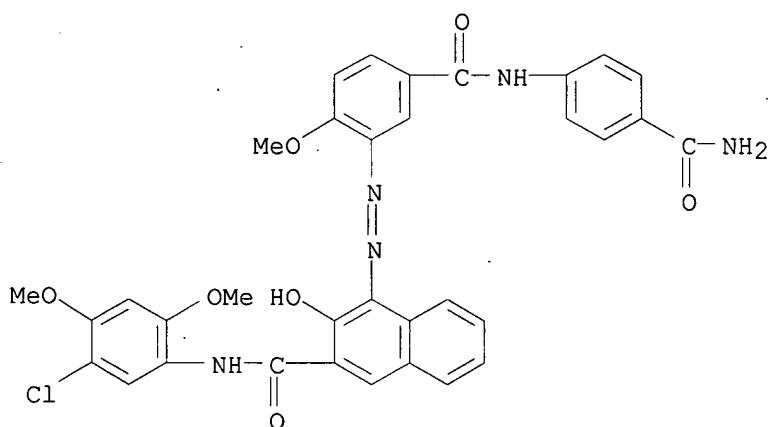
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
[(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



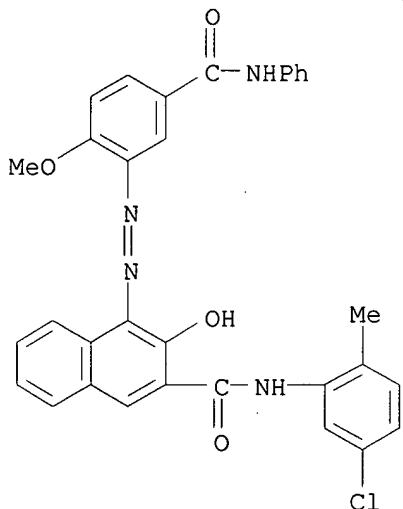
RN 56396-10-2 HCA
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 59487-23-9 HCA
CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-
2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI)
(CA INDEX NAME)



RN 68227-78-1 HCA
 CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[{[2-methoxy-5-[(phenylamino)carbonyl]phenyl}azo]- (9CI) (CA INDEX NAME)

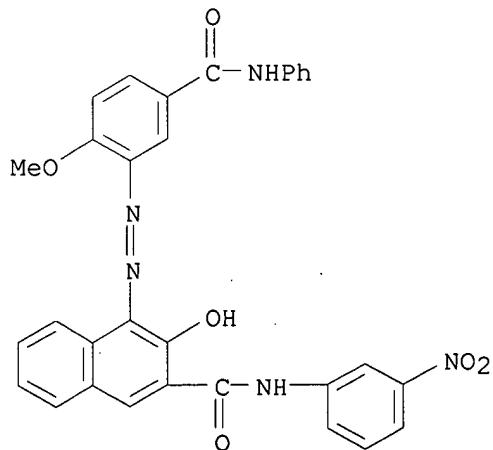


L40 ANSWER 4 OF 22 HCA COPYRIGHT 2003 ACS
 138:47279 Method and apparatus for full-color or multicolor electrophotographic image formation. Sugawara, Yasuyoshi; Kaya, Takaaki; Iida, Iku; Hotta, Yojiro (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002372821 A2 20021226, 41 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-179609 20010614.

AB In the method which is applicable to laser beam color printers, color copying app., etc., and employs 4 image-forming units, 20-80 mm-diam. 1st, 2nd, and 3rd photoreceptor drums having org. photoconductor layer are electrostatically charged to have a surface potential 500-800 V (abs. value), imagewise exposed, and developed with single-component developers contg. 1st, 2nd, and 3rd toners, resp., a 20-80 mm-diam. 4th photoreceptor drum having amorphous Si layer is charged at surface potential 300-450 V (abs. value), imagewise exposed, and developed with a single-component developer contg. 4th toner, the 1st, 2nd, and 3rd toners have different colors selected from nonmagnetic yellow toner, nonmagnetic magenta toner, and nonmagnetic cyan toner, and the 4th toner is nonmagnetic black toner, wherein (a) the yellow, magenta, cyan, and black toners are

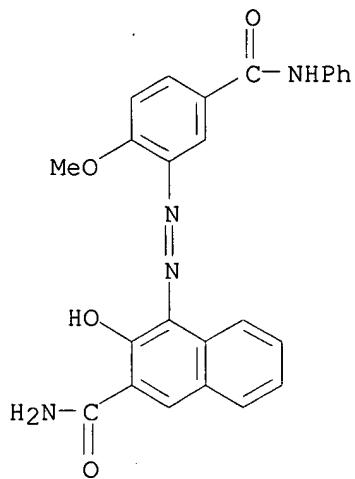
neg.-chargeable and have wt. av. particle size 4.0-10.0 .mu.m, (b) TmY, TmM, and TmC (softening points of yellow toner, magenta, and cyan toner, resp.) are 85-110.degree. each, TmBk (softening point of black toner) is 90-115.degree., and TmBk is .gtoreq.5.degree. higher than the max. value among TmY, TmM, and TmC, and (c) coloring power of black toner, defined as image d. measured after the toner is fixed once when the quantity of unfixed toner on a transfer medium (M/S) is 0.5 mg/cm², is 1.0-1.8. This makes it possible to obtain high-quality images in a high image d. and a superior color reprodn.

- IC ICM G03G015-01
 ICS G03G015-01; G03G005-08; G03G005-10; G03G005-147; G03G009-087;
 G03G009-09; G03G009-097; G03G015-08
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT **Electrophotographic toners**
 (heat-fixable; electrophotog. full-color or multicolor image formation using org. photoconductors for color toner images and amorphous Si photoconductor for black toner image)
- IT 980-26-7, C.I. Pigment Red 122 1047-16-1, C.I. Pigment Violet 19
 5280-68-2, C.I. Pigment Red 146 5281-04-9, C.I. Pigment Red 57:1
 6410-41-9, C.I. Pigment Red 5 **6448-96-0**, C.I. Pigment Red 31
 7023-61-2, C.I. Pigment Red 48:2 7538-59-2, C.I. Pigment Red 58:2
 12014-93-6, C.I. Pigment Red 265 51920-12-8, C.I. Pigment Red 185
56396-10-2, C.I. Pigment Red 150 **59487-23-9**, C.I.
 Pigment Red 187 68016-05-7, C.I. Pigment Red 245 **68227-78-1**,
 C.I. Pigment Red 147 84632-65-5, C.I. Pigment Red 254 99402-80-9, C.I.
 Pigment Red 184 140114-63-2, C.I. Pigment Red 238
 RL: TEM (Technical or engineered material use); USES (Uses)
 (magenta toner contg.; electrophotog. full-color or multicolor image formation using org. photoconductors for color toner images and amorphous Si photoconductor for black toner image)
- IT **6448-96-0**, C.I. Pigment Red 31 **56396-10-2**, C.I. Pigment Red 150 **59487-23-9**, C.I. Pigment Red 187 **68227-78-1**,
 C.I. Pigment Red 147
 RL: TEM (Technical or engineered material use); USES (Uses)
 (magenta toner contg.; electrophotog. full-color or multicolor image formation using org. photoconductors for color toner images and amorphous Si photoconductor for black toner image)
- RN 6448-96-0 HCA
- CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[phenylamino]carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



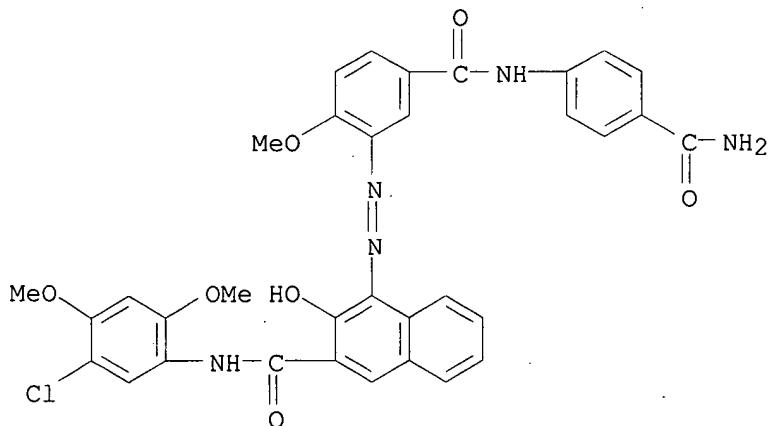
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



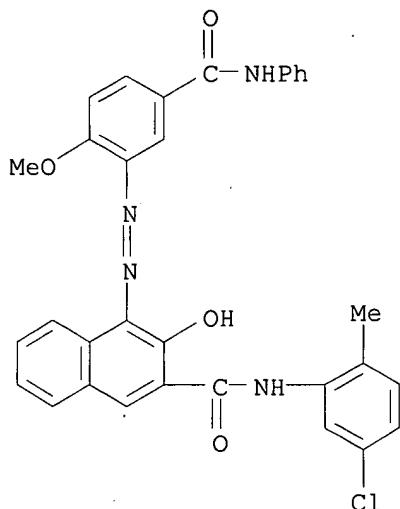
RN 59487-23-9 HCA

CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI)
(CA INDEX NAME)



RN 68227-78-1 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 5 OF 22 HCA COPYRIGHT 2003 ACS

138:47278 Method and apparatus for full-color or multicolor electrophotographic image formation. Iida, Iku; Kaya, Takaaki; Kondo, Katsumi; Kamibayashi, Makoto; Kamitaki, Takaaki; Mikuriya, Hiroshi (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002372820 A2 20021226, 44 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-179606 20010614.

AB In the method which is applicable to laser beam color printers, color copying app., etc., and employs 4 image-forming units, 20-80 mm-diam. 1st, 2nd, and 3rd photoreceptor drums having org. photoconductor layer are electrostatically charged to have a surface potential 500-800 V (abs. value), imagewise exposed, and developed with two-component developers contg. 1st, 2nd, and 3rd toners, resp., a 20-80 mm-diam. 4th photoreceptor drum having amorphous Si layer is charged at surface potential 300-450 V (abs. value), imagewise exposed, and developed with a single-component developer contg. 4th toner, the 1st, 2nd, and 3rd toners have different colors selected from nonmagnetic yellow toner, nonmagnetic magenta toner, and nonmagnetic cyan toner, and the 4th toner is magnetic black toner, wherein (a) the yellow, magenta, cyan, and black toners are neg.-chargeable and wt. av. particle size 4.0-10.0 .mu.m, (b) 50% vol. av. particle size of magnetic carriers for the two-component developers is 10-80 .mu.m, (c) TmY, TmM, and TmC (softening points of yellow toner, magenta, and cyan toner, resp.) are 85-110.degree. each, TmBk (softening point of black toner) is 90-115.degree., and TmBk is .gtoreq.5.degree. higher than the max. value among TmY, TmM, and TmC, and (d) coloring power of black toner, defined as image d. measured after the toner is fixed once when the quantity of unfixed toner on a transfer medium (M/S) is 0.5 mg/cm², is 0.5-1.5. This makes it possible to obtain high-quality images in a high image d. and a superior color reprodn.

IC ICM G03G015-01
ICS G03G015-01; G03G005-05; G03G005-08; G03G009-083; G03G009-087;
G03G009-09; G03G009-10; G03G015-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**
(heat-fixable; electrophotog. full-color or multicolor image formation using org. photoconductors for color toner images and amorphous Si photoconductor for black toner image)

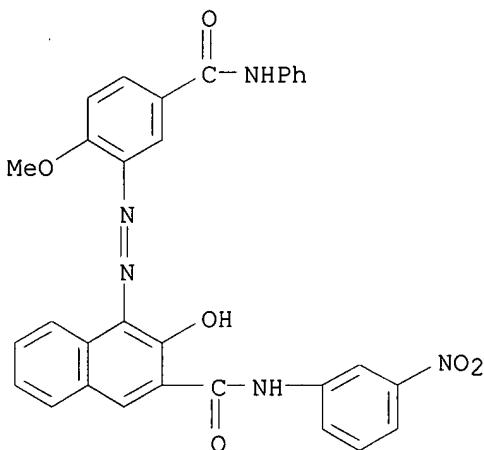
IT 980-26-7, C.I. Pigment Red 122 5280-68-2, C.I. Pigment Red 146

5281-04-9, C.I. Pigment Red 57:1 6410-41-9, C.I. Pigment Red 5
6448-96-0, C.I. Pigment Red 31 7023-61-2, C.I. Pigment Red 48:2
 7538-59-2, C.I. Pigment Red 58:2 12014-93-6, C.I. Pigment Red 265
 51920-12-8, C.I. Pigment Red 185 **56396-10-2**, C.I. Pigment Red
 150 **59487-23-9**, C.I. Pigment Red 187 68016-05-7, C.I. Pigment
 Red 245 **68227-78-1**, C.I. Pigment Red 147 99402-80-9, C.I.
 Pigment Red 184 140114-63-2, C.I. Pigment Red 238
 RL: TEM (Technical or engineered material use); USES (Uses)
 (magenta toner contg.; electrophotog. full-color or multicolor image
 formation using org. photoconductors for color toner images and
 amorphous Si photoconductor for black toner image)

IT **6448-96-0**, C.I. Pigment Red 31 **56396-10-2**, C.I. Pigment
 Red 150 **59487-23-9**, C.I. Pigment Red 187 **68227-78-1**,
 C.I. Pigment Red 147
 RL: TEM (Technical or engineered material use); USES (Uses)
 (magenta toner contg.; electrophotog. full-color or multicolor image
 formation using org. photoconductors for color toner images and
 amorphous Si photoconductor for black toner image)

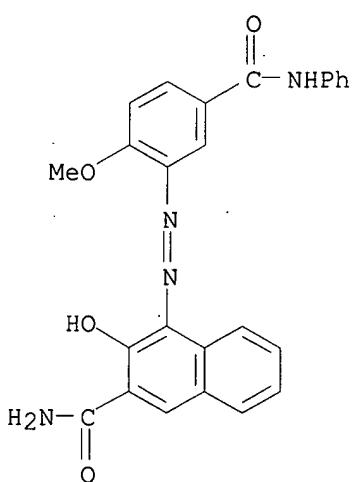
RN 6448-96-0 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[(2-methoxy-5-
 [(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX
 NAME)



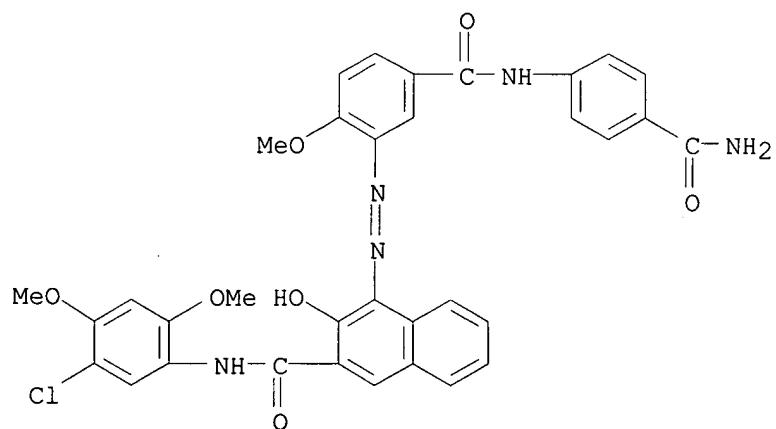
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[(2-methoxy-5-
 [(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



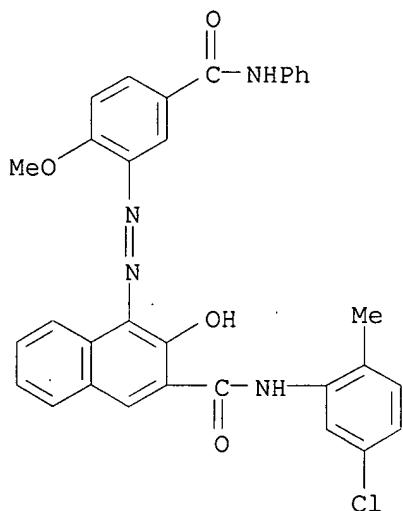
RN 59487-23-9 HCA

CN 2-Naphthalene carboxamide, 4-[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI)
(CA INDEX NAME)



RN 68227-78-1 HCA

CN 2-Naphthalene carboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo- (9CI) (CA INDEX NAME)



L40 ANSWER 6 OF 22 HCA COPYRIGHT 2003 ACS

138:47274 Electrophotographic color toner and its manufacture. Hidaka,
Yasuhiro; Eida, Akihiro (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP *nph*
2002372799 A2 20021226, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION:
JP 2001-181765 20010615.

AB The toner comprises a binder resin, 1-20 wt.% of a releasing agent with m.p. 60-115.degree., a colorant, and an external additive, and the vol. median of the particle size is 5-15 .mu.m, and content of the particle with particle size $\geq 3 \mu\text{m}$ is $\leq 5 \text{ no.\%}$. In the manuf. of the toner, the binder resin, the releasing agent, and the colorant are melt kneaded and mixed with the external additive, and pulverized and classified. The toner shows good durability and antioffset property.

IC ICM G03G009-08

ICS G03G009-08; G03G009-087; G03G009-09

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(particle size-controlled electrophotog. toner contg. releasing agent)

IT 67990-05-0, Permanent Carmine 3810

RL: TEM (Technical or engineered material use); USES (Uses)

(particle size-controlled electrophotog. toner contg. releasing agent)

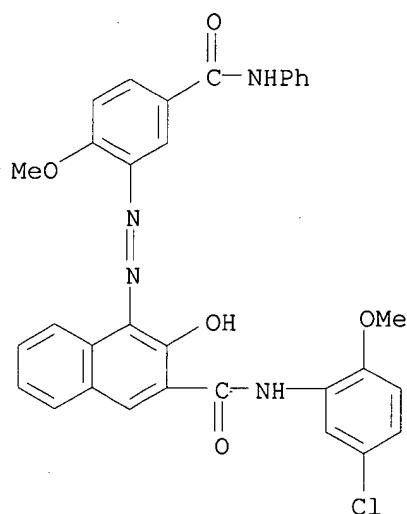
IT 67990-05-0, Permanent Carmine 3810

RL: TEM (Technical or engineered material use); USES (Uses)

(particle size-controlled electrophotog. toner contg. releasing agent)

RN 67990-05-0 HCA

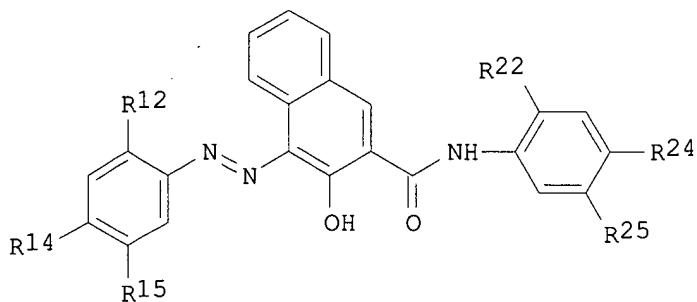
CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



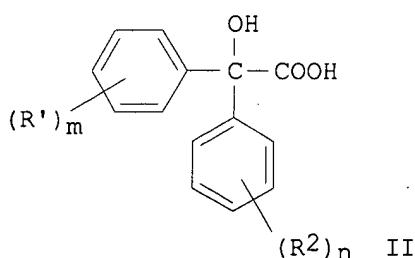
L40 ANSWER 7 OF 22 HCA COPYRIGHT 2003 ACS

137:70487 Electrophotographic magenta toner showing excellent color reproduction. Kamibayashi, Makoto; Kondo, Katsumi; Iida, Iku; Kaya, Takaaki (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002182433 A2 20020626, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-379664 20001214. *NP*

GI



I



AB The title magenta toner comprises a polyester binder resin, a pigment I (R12 = H, OCH₃; R14 = H, CONH₂; R15 = H, SO₂N(C₂H₅)₂, CONHC₆H₅, CONH₂, CONHC₆H₄(p)-COHN₂; R22 = H, OCH₃, CH₃, OC₂H₅; R24 = H, OCH₃, Cl; R25 = H, OCH₃, Cl, NO₂), and a benzilic acid deriv. II (R₁, R₂ = alkyl, alkenyl, alkoxy, halo, nitro, cyano, amino, carboxyl, hydroxyl; m, n = 0-5) complex with Al as a charge controlling agent, wherein the toner has an acid value of 2-50 mgKOH/g and a wt. av. particle size of 4-10 .mu.m. The toner contains inorg. micropowder additives with a particle size of 0.001-0.2 .mu.m. The magenta toner shows excellent stable performance under various conditions.

IC ICM G03G009-09

ICS C09B029-20; G03G009-087; G03G009-097; G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(electrophotog. magenta toner showing excellent color reprodn. and stable performance)

IT 5280-68-2, C.I.Pigment Red 146 **6448-96-0**, C.I.Pigment Red 31

59487-23-9, C.I.Pigment Red 187 **67990-05-0**

140114-63-2, C.I.Pigment Red 238

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(magenta pigment; electrophotog. magenta toner showing excellent color reprodn. and stable performance)

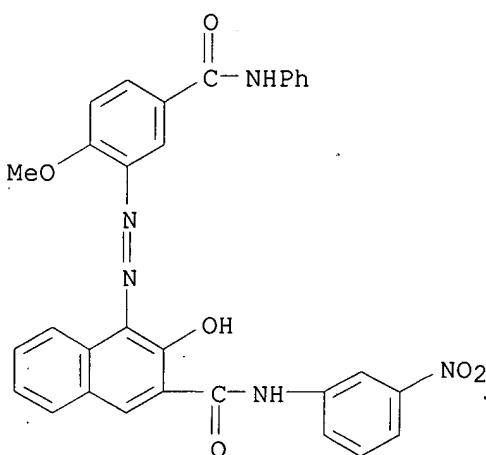
IT **6448-96-0**, C.I.Pigment Red 31 **59487-23-9**, C.I.Pigment Red 187 **67990-05-0**

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(magenta pigment; electrophotog. magenta toner showing excellent color reprodn. and stable performance)

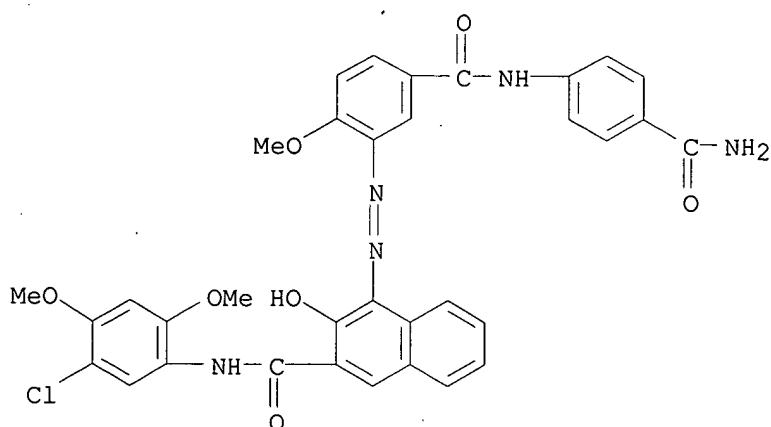
RN 6448-96-0 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



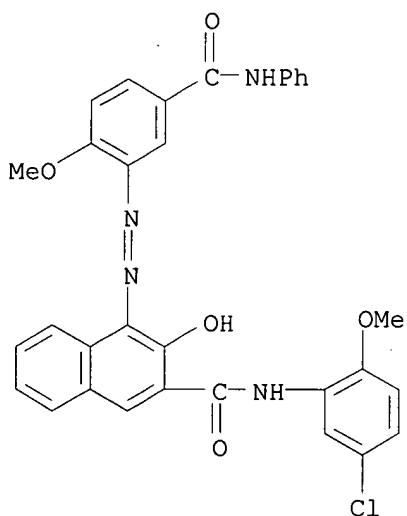
RN 59487-23-9 HCA

CN 2-Naphthalenecarboxamide, 4-[[5-[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)



RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 8 OF 22 HCA COPYRIGHT 2003 ACS

137:13203 Drop-out printed material for optical character reader formed by electrophotographic orange toner. Oba, Katsunori; Furukawara, Toshiro; Amagai, Shinji (Dainippon Ink and Chemicals, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002156794 A2 20020531, - 14 pp. (Japanese). CODEN: JKXXAF. *KA*
APPLICATION: JP 2000-354156 20001121.

AB The drop-out image for optical character reader, formed by an electrophotog. orange toner contg. a binder, an orange colorant or a mixt of a yellow and red colorants, satisfies $1 - (\text{Rd}/\text{Rn}) \geq 0.04$ (Rd = reflectivity of drop-out printed image; Rn = reflectivity of nonimage part at irradn. of 620 nm light). Orange images with good color satn. for drop-out image for optical character reader are obtained.

IC ICM G03G009-09

ICS G03G009-087; G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(electrophotog. orange toner contg. orange colorant or mixt. of yellow

and red colorants for drop-out image formation)

IT 128-69-8, C.I. Pigment Red 224 128-70-1, C.I. Pigment Orange 40
475-71-8, C.I. Pigment Yellow 24 980-26-7, C.I. Pigment Red 122
1103-38-4, C.I. Pigment Red 49:1 1103-39-5, C.I. Pigment Red 49:2
1325-14-0, C.I. Pigment Orange 18 1325-19-5, C.I. Pigment Red 66
1325-21-9, C.I. Pigment Red 65 1325-22-0, C.I. Pigment Red 67
1326-11-0, C.I. Pigment Yellow 18 1657-16-5, C.I. Pigment Yellow 4
2379-77-3, C.I. Pigment Red 189 2387-03-3, C.I. Pigment Yellow 101
2425-85-6, C.I. Pigment Red 3 2512-29-0, C.I. Pigment Yellow 1
2786-76-7, C.I. Pigment Red 170 2814-77-9, C.I. Pigment Red 4
3049-71-6, C.I. Pigment Red 178 3089-17-6, C.I. Pigment Red 202
3468-63-1, C.I. Pigment Orange 5 3520-72-7, C.I. Pigment Orange 13
3564-22-5, C.I. Pigment Red 18 3573-01-1, C.I. Pigment Red 209
3905-19-9, C.I. Pigment Red 166 4028-94-8, C.I. Pigment Yellow 123
4051-63-2, C.I. Pigment Red 177 4106-67-6, C.I. Pigment Yellow 5
4106-76-7, C.I. Pigment Yellow 6 4118-16-5, C.I. Pigment Yellow 147
4216-01-7, C.I. Pigment Yellow 108 4216-02-8, C.I. Pigment Red 194
4378-61-4, C.I. Pigment Red 168 4424-06-0, C.I. Pigment Orange 43
4531-49-1, C.I. Pigment Yellow 17 4948-15-6, C.I. Pigment Red 149
5045-40-9, C.I. Pigment Yellow 109 5102-83-0, C.I. Pigment Yellow 13
5160-02-1, C.I. Pigment Red 53:1 5280-66-0, C.I. Pigment Red 48:4
5280-67-1, C.I. Pigment Red 133 5280-68-2, C.I. Pigment Red 146
5280-74-0, C.I. Pigment Orange 31 5280-78-4, C.I. Pigment Red 144
5280-80-8, C.I. Pigment Yellow 95 5281-04-9, C.I. Pigment Red 57:1
5468-75-7, C.I. Pigment Yellow 14 5521-31-3, C.I. Pigment Red 179
5567-15-7, C.I. Pigment Yellow 83 5580-57-4, C.I. Pigment Yellow 93
5580-58-5, C.I. Pigment Yellow 94 5590-18-1, C.I. Pigment Yellow 110
5850-80-6, C.I. Pigment Red 68 5858-88-8, C.I. Pigment Orange 19
5979-28-2, C.I. Pigment Yellow 16 6041-94-7, C.I. Pigment Red 2
6358-31-2, C.I. Pigment Yellow 74 6358-37-8, C.I. Pigment Yellow 55
6358-40-3, C.I. Pigment Red 115 6358-47-0, C.I. Pigment Red 114
6358-85-6, C.I. Pigment Yellow 12 6358-87-8, C.I. Pigment Red 38
6358-88-9, C.I. Pigment Orange 15 6358-90-3, C.I. Pigment Red 42
6371-76-2, C.I. Pigment Red 64:1 6371-96-6, C.I. Pigment Orange 1
6372-81-2, C.I. Pigment Red 50:1 6373-10-0, C.I. Pigment Red 54
6410-09-9, C.I. Pigment Orange 2 6410-10-2, C.I. Pigment Red 1
6410-13-5, C.I. Pigment Red 6 6410-30-6, C.I. Pigment Red 8 6410-32-8,
C.I. Pigment Red 12 6410-35-1, C.I. Pigment Red 10 6410-38-4, C.I.
Pigment Red 9 6410-39-5, C.I. Pigment Red 15 6410-41-9, C.I. Pigment
Red 5 6417-83-0, C.I. Pigment Red 63:1 6424-77-7, C.I. Pigment Red 190
6448-95-9, C.I. Pigment Red 22 **6448-96-0**, C.I. Pigment Red 31
6471-49-4, C.I. Pigment Red 23 6471-50-7, C.I. Pigment Red 14
6471-51-8, C.I. Pigment Red 7 6486-23-3, C.I. Pigment Yellow 3
6505-28-8, C.I. Pigment Orange 16 6505-29-9, C.I. Pigment Red 41
6528-34-3, C.I. Pigment Yellow 65 6528-35-4, C.I. Pigment Yellow 15
6535-46-2, C.I. Pigment Red 112 6655-84-1, C.I. Pigment Red 17
6883-91-6, C.I. Pigment Red 37 6985-92-8, C.I. Pigment Red 175
6985-95-1, C.I. Pigment Red 171 7023-61-2, C.I. Pigment Red 48:2
7585-41-3, C.I. Pigment Red 48:1 12224-98-5, C.I. Pigment Red 81
12225-06-8, C.I. Pigment Red 176 12225-18-2, C.I. Pigment Yellow
97 12225-21-7, C.I. Pigment Yellow 100 12227-62-2, C.I. Pigment Red
193 12227-78-0, C.I. Pigment Red 172 12236-62-3, C.I. Pigment Orange
36 12236-64-5, C.I. Pigment Orange 38 12238-31-2, C.I. Pigment Red
52:2 12768-99-9, C.I. Pigment Orange 42 13515-40-7, C.I. Pigment
Yellow 73 14295-43-3, C.I. Pigment Red 88 14359-20-7, C.I. Pigment
Yellow 113 15110-84-6, C.I. Pigment Yellow 87 15680-42-9, C.I. Pigment
Yellow 129 15782-04-4, C.I. Pigment Orange 17 15782-05-5, C.I. Pigment
Red 48:3 15790-07-5, C.I. Pigment Yellow 104 15793-73-4, C.I. Pigment
Orange 34 15876-39-8, C.I. Pigment Red 90:1 15876-58-1, C.I. Pigment
Red 174 17852-99-2, C.I. Pigment Red 52:1 21405-81-2, C.I. Pigment

Yellow 117 22094-93-5, C.I. Pigment Yellow 81 24108-89-2, C.I. Pigment Red 123 29204-84-0, C.I. Pigment Yellow 153 29920-31-8, C.I. Pigment Yellow 120 30125-47-4, C.I. Pigment Yellow 138 31775-16-3, C.I. Pigment Yellow 170 31778-10-6, C.I. Pigment Red 208 31837-42-0, C.I. Pigment Yellow 151 32432-45-4, C.I. Pigment Yellow 98 35355-77-2, C.I. Pigment Red 63:2 36888-99-0, C.I. Pigment Yellow 139 40618-31-3, C.I. Pigment Red 214 43035-18-3, C.I. Pigment Red 247 50326-33-5, C.I. Pigment Red 243 51016-63-8, C.I. Pigment Yellow 173 51868-24-7, C.I. Pigment Red 90 51920-12-8, C.I. Pigment Red 185 52238-92-3, C.I. Pigment Red 242 52846-56-7, C.I. Pigment Orange 62 53815-04-6, C.I. Pigment Yellow 171 **56396-10-2**, C.I. Pigment Red 150
59487-23-9, C.I. Pigment Red 187 61013-97-6, C.I. Pigment Red 151 61512-61-6, C.I. Pigment Orange 51 **61847-48-1**, C.I. Pigment Red 188 61968-84-1, C.I. Pigment Yellow 116 63661-26-7, C.I. Pigment Yellow 156 64552-28-9, C.I. Pigment Red 58:4 68016-05-7, C.I. Pigment Red 245 68134-22-5, C.I. Pigment Yellow 154 **68227-78-1**, C.I. Pigment Red 147 68259-05-2, C.I. Pigment Red 220 68399-99-5, C.I. Pigment Orange 60 68516-73-4, C.I. Pigment Yellow 155 71566-54-6, C.I. Pigment Red 221 71832-85-4, C.I. Pigment Yellow 168 73385-03-2, C.I. Pigment Yellow 169 76233-80-2, C.I. Pigment Yellow 172 77804-81-0, C.I. Pigment Yellow 180 79953-85-8, C.I. Pigment Yellow 128 85702-53-0, C.I. Pigment Yellow 133 104074-25-1, C.I. Pigment Red 83 431991-58-1, Benzenesulfonic acid, 4-chloro-2-[[2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-5-methyl-, manganese complex 431991-59-2, Pigment Red 246

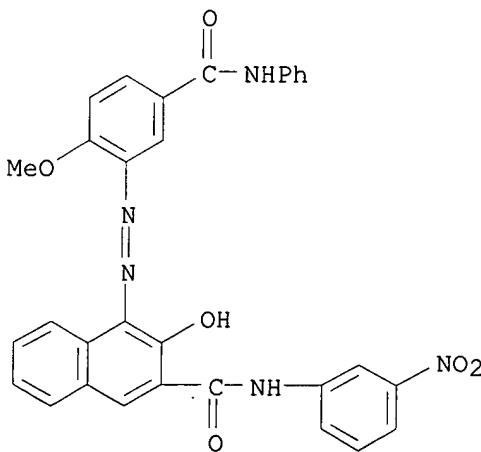
IT RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. orange toner contg. orange colorant or mixt. of yellow and red colorants for drop-out image formation)

6448-96-0, C.I. Pigment Red 31 **12225-06-8**, C.I. Pigment Red 176 **56396-10-2**, C.I. Pigment Red 150 **59487-23-9**, C.I. Pigment Red 187 **61847-48-1**, C.I. Pigment Red 188
68227-78-1, C.I. Pigment Red 147

IT RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. orange toner contg. orange colorant or mixt. of yellow and red colorants for drop-out image formation)

RN 6448-96-0 HCA

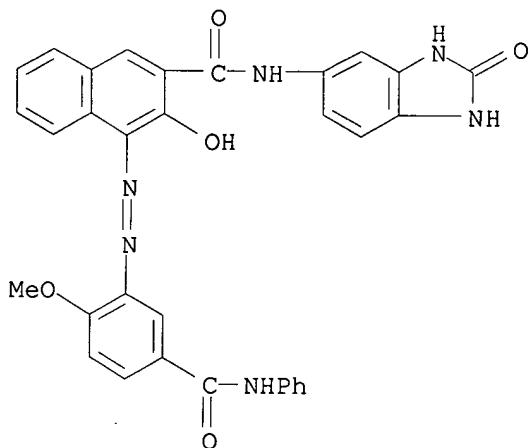
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)



RN 12225-06-8 HCA

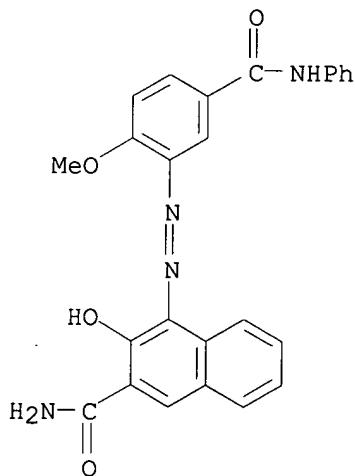
CN 2-Naphthalenecarboxamide, N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-

hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



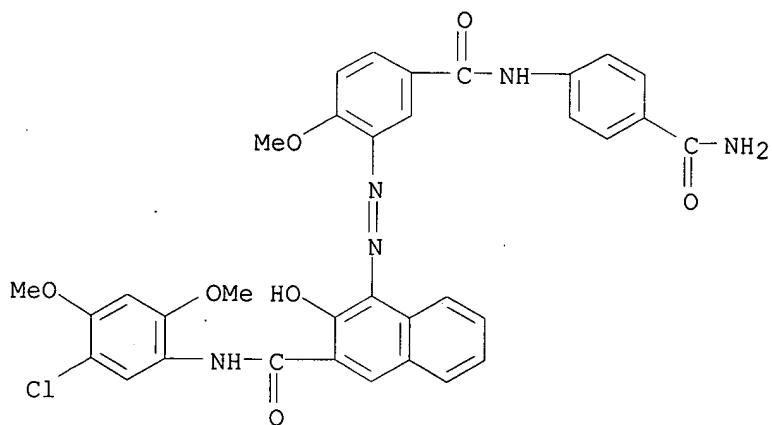
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



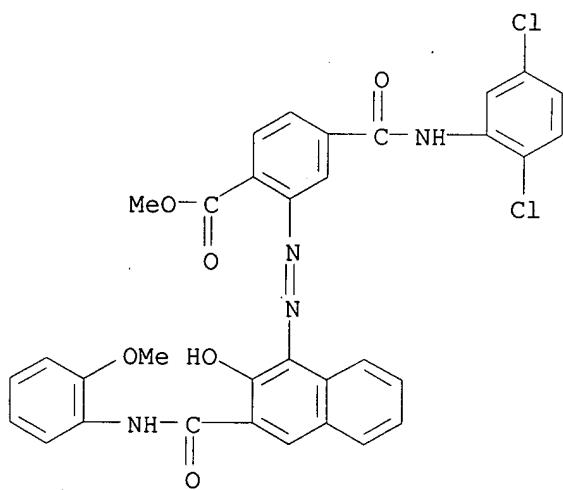
RN 59487-23-9 HCA

CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)



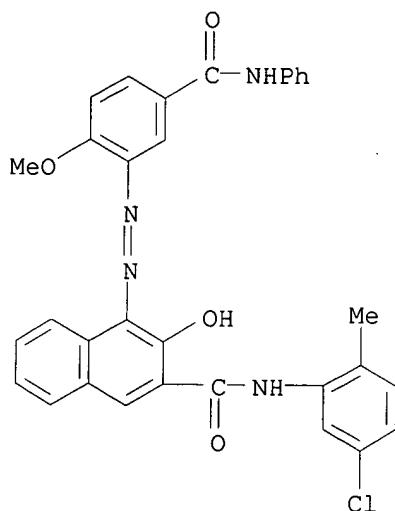
RN 61847-48-1 HCA

CN Benzoic acid, 4-[(2,5-dichlorophenyl)amino]carbonyl]-2-[(2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl)-1-naphthalenyl]azo]-, methyl ester (9CI)
(CA INDEX NAME)



RN 68227-78-1 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 9 OF 22 HCA COPYRIGHT 2003 ACS

137:13202 Electrophotographic orange toner. Oba, Katsunori; Furukawara, Toshiro; Amagai, Shinji (Dainippon Ink and Chemicals, Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002156776 A2 20020531, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-354157 20001121.

AB The toner comprises a polyester binder resin, wax mainly contg. higher fatty acid ester and/or fatty alc., and a coloring agent contg. an orange colorant or a mixt. of yellow and red colorants. The toner shows good antioffset property and gives clear orange images without fog.

IC ICM G03G009-08

ICS G03G009-087; G03G009-09

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(electrophotog. orange toner contg. orange colorant or mixt. of yellow and red colorants)

IT 128-69-8, C.I. Pigment Red 224 128-70-1, C.I. Pigment Orange 40
 475-71-8, C.I. Pigment Yellow 24 980-26-7, C.I. Pigment Red 122
 1103-38-4, C.I. Pigment Red 49:1 1103-39-5, C.I. Pigment Red 49:2
 1325-14-0, C.I. Pigment Orange 18 1325-19-5, C.I. Pigment Red 66
 1325-21-9, C.I. Pigment Red 65 1325-22-0, C.I. Pigment Red 67
 1326-11-0, C.I. Pigment Yellow 18 1657-16-5, C.I. Pigment Yellow 4
 2379-77-3, C.I. Pigment Red 189 2387-03-3, C.I. Pigment Yellow 101
 2425-85-6, C.I. Pigment Red 3 2512-29-0, C.I. Pigment Yellow 1
 2786-76-7, C.I. Pigment Red 170 2814-77-9, C.I. Pigment Red 4
 3049-71-6, C.I. Pigment Red 178 3089-17-6, C.I. Pigment Red 202
 3468-63-1, C.I. Pigment Orange 5 3520-72-7, C.I. Pigment Orange 13
 3564-22-5, C.I. Pigment Red 18 3573-01-1, C.I. Pigment Red 209
 3905-19-9, C.I. Pigment Red 166 4028-94-8, C.I. Pigment Yellow 123
 4051-63-2, C.I. Pigment Red 177 4106-67-6, C.I. Pigment Yellow 5
 4106-76-7, C.I. Pigment Yellow 6 4118-16-5; C.I. Pigment Yellow 147
 4216-01-7, C.I. Pigment Yellow 108 4216-02-8, C.I. Pigment Red 194
 4378-61-4, C.I. Pigment Red 168 4424-06-0, C.I. Pigment Orange 43
 4531-49-1, C.I. Pigment Yellow 17 4948-15-6, C.I. Pigment Red 149
 5045-40-9, C.I. Pigment Yellow 109 5102-83-0, C.I. Pigment Yellow 13
 5160-02-1, C.I. Pigment Red 53:1 5280-66-0, C.I. Pigment Red 48:4
 5280-67-1, C.I. Pigment Red 133 5280-68-2, C.I. Pigment Red 146
 5280-74-0, C.I. Pigment Orange 31 5280-78-4, C.I. Pigment Red 144

5280-80-8, C.I. Pigment Yellow 95 5281-04-9, C.I. Pigment Red 57:1
5468-75-7, C.I. Pigment Yellow 14 5521-31-3, C.I. Pigment Red 179
5567-15-7, C.I. Pigment Yellow 83 5580-57-4, C.I. Pigment Yellow 93
5580-58-5, C.I. Pigment Yellow 94 5590-18-1, C.I. Pigment Yellow 110
5850-80-6, C.I. Pigment Red 68 5858-88-8, C.I. Pigment Orange 19
5979-28-2, C.I. Pigment Yellow 16 6041-94-7, C.I. Pigment Red 2
6358-31-2, C.I. Pigment Yellow 74 6358-37-8, C.I. Pigment Yellow 55
6358-40-3, C.I. Pigment Red 115 6358-47-0, C.I. Pigment Red 114
6358-85-6, C.I. Pigment Yellow 12 6358-87-8, C.I. Pigment Red 38
6358-88-9, C.I. Pigment Orange 15 6358-90-3, C.I. Pigment Red 42
6371-76-2, C.I. Pigment Red 64:1 6371-96-6, C.I. Pigment Orange 1
6372-81-2, C.I. Pigment Red 50:1 6373-10-0, C.I. Pigment Red 54
6410-09-9, C.I. Pigment Orange 2 6410-10-2, C.I. Pigment Red 1
6410-13-5, C.I. Pigment Red 6 6410-30-6, C.I. Pigment Red 8 6410-32-8,
C.I. Pigment Red 12 6410-35-1, C.I. Pigment Red 10 6410-38-4, C.I.
Pigment Red 9 6410-39-5, C.I. Pigment Red 15 6410-41-9, C.I. Pigment
Red 5 6417-83-0, C.I. Pigment Red 63:1 6424-77-7, C.I. Pigment Red 190
6448-95-9, C.I. Pigment Red 22 **6448-96-0**, C.I. Pigment Red 31
6471-49-4, C.I. Pigment Red 23 6471-50-7, C.I. Pigment Red 14
6471-51-8, C.I. Pigment Red 7 6486-23-3, C.I. Pigment Yellow 3
6505-28-8, C.I. Pigment Orange 16 6505-29-9, C.I. Pigment Red 41
6528-34-3, C.I. Pigment Yellow 65 6528-35-4, C.I. Pigment Yellow 15
6535-46-2, C.I. Pigment Red 112 6655-84-1, C.I. Pigment Red 17
6883-91-6, C.I. Pigment Red 37 6985-92-8, C.I. Pigment Red 175
6985-95-1, C.I. Pigment Red 171 7023-61-2, C.I. Pigment Red 48:2
7585-41-3, C.I. Pigment Red 48:1 12224-98-5, C.I. Pigment Red 81
12225-06-8, C.I. Pigment Red 176 12225-18-2, C.I. Pigment Yellow
97 12225-21-7, C.I. Pigment Yellow 100 12227-62-2, C.I. Pigment Red
193 12227-78-0, C.I. Pigment Red 172 12236-62-3, C.I. Pigment Orange
36 12236-64-5, C.I. Pigment Orange 38 12238-31-2, C.I. Pigment Red
52:2 12768-99-9, C.I. Pigment Orange 42 13515-40-7, C.I. Pigment
Yellow 73 14295-43-3, C.I. Pigment Red 88 14359-20-7, C.I. Pigment
Yellow 113 15110-84-6, C.I. Pigment Yellow 87 15680-42-9, C.I. Pigment
Yellow 129 15782-04-4, C.I. Pigment Orange 17 15782-05-5, C.I. Pigment
Red 48:3 15790-07-5, C.I. Pigment Yellow 104 15793-73-4, C.I. Pigment
Orange 34 15876-39-8, C.I. Pigment Red 90:1 15876-58-1, C.I. Pigment
Red 174 17852-99-2, C.I. Pigment Red 52:1 21405-81-2, C.I. Pigment
Yellow 117 22094-93-5, C.I. Pigment Yellow 81 24108-89-2, C.I. Pigment
Red 123 25311-19-7, C.I. Pigment Red 68 29204-84-0, C.I. Pigment
Yellow 153 29920-31-8, C.I. Pigment Yellow 120 30125-47-4, C.I.
Pigment Yellow 138 31775-16-3, C.I. Pigment Yellow 170 31778-10-6,
C.I. Pigment Red 208 31837-42-0, C.I. Pigment Yellow 151 32432-45-4,
C.I. Pigment Yellow 98 35355-77-2, C.I. Pigment Red 63:2 36888-99-0,
C.I. Pigment Yellow 139 40618-31-3, C.I. Pigment Red 214 43035-18-3,
C.I. Pigment Red 247 50326-33-5, C.I. Pigment Red 243 51016-63-8, C.I.
Pigment Yellow 173 51868-24-7, C.I. Pigment Red 90 51920-12-8, C.I.
Pigment Red 185 52238-92-3, C.I. Pigment Red 242 52846-56-7, C.I.
Pigment Orange 62 53815-04-6, C.I. Pigment Yellow 171 **56396-10-2**
, C.I. Pigment Red 150 **59487-23-9**, C.I. Pigment Red 187
61013-97-6, C.I. Pigment Red 151 61512-61-6, C.I. Pigment Orange 51
61847-48-1, C.I. Pigment Red 188 61968-84-1, C.I. Pigment Yellow
116 63661-26-7, C.I. Pigment Yellow 156 64552-28-9, C.I. Pigment Red
58:4 68016-05-7, C.I. Pigment Red 245 68134-22-5, C.I. Pigment Yellow
154 **68227-78-1**, C.I. Pigment Red 147 68259-05-2, C.I. Pigment
Red 220 68399-99-5, C.I. Pigment Orange 60 68516-73-4, C.I. Pigment
Yellow 155 71566-54-6, C.I. Pigment Red 221 71832-85-4, C.I. Pigment
Yellow 168 73385-03-2, C.I. Pigment Yellow 169 76233-80-2, C.I.
Pigment Yellow 172 77804-81-0, C.I. Pigment Yellow 180 79953-85-8,
C.I. Pigment Yellow 128 85702-53-0, C.I. Pigment Yellow 133
104074-25-1, C.I. Pigment Red 83 431991-58-1, C.I. Pigment Red 243:1

431991-59-2, C.I. Pigment Red 246

RL: TEM (Technical or engineered material use); USES (Uses)
 (electrophotog. orange toner contg. orange colorant or mixt. of yellow
 and red colorants)

IT 6448-96-0, C.I. Pigment Red 31 12225-06-8, C.I. Pigment

Red 176 56396-10-2, C.I. Pigment Red 150 59487-23-9,

C.I. Pigment Red 187 61847-48-1, C.I. Pigment Red 188

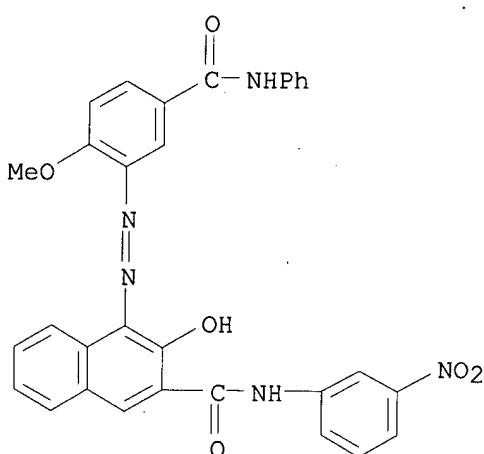
68227-78-1, C.I. Pigment Red 147

RL: TEM (Technical or engineered material use); USES (Uses)

(electrophotog. orange toner contg. orange colorant or mixt. of yellow
 and red colorants)

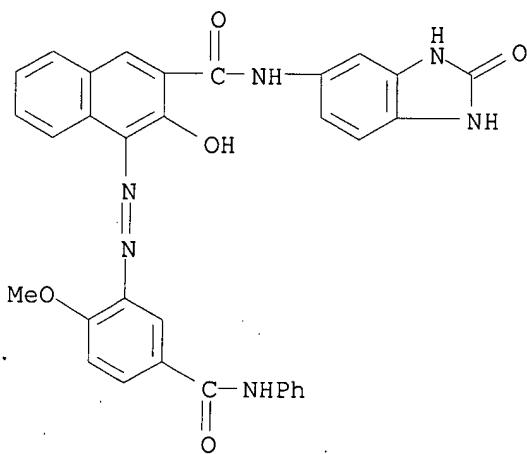
RN 6448-96-0 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
 [(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX
 NAME)



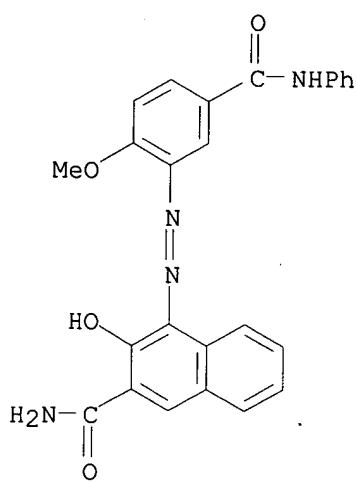
RN 12225-06-8 HCA

CN 2-Naphthalenecarboxamide, N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-
 hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA
 INDEX NAME)



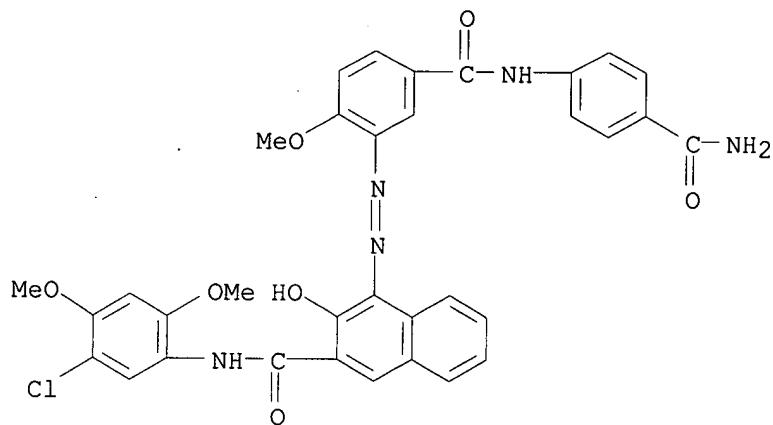
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
 [(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



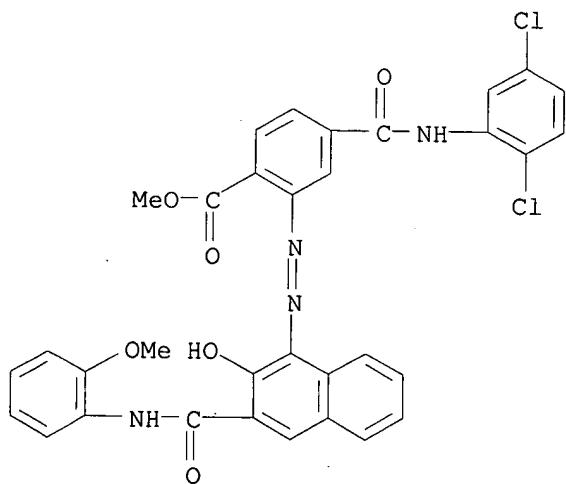
RN 59487-23-9 HCA

CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI)
(CA INDEX NAME)



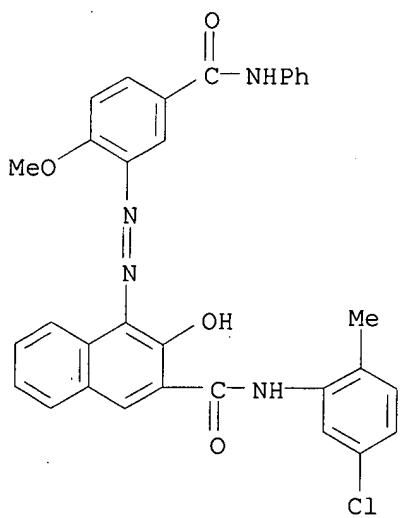
RN 61847-48-1 HCA

CN Benzoic acid, 4-[[[(2,5-dichlorophenyl)amino]carbonyl]-2-[[2-hydroxy-3-[(2-methoxyphenyl)amino]carbonyl]-1-naphthalenyl]azo]-, methyl ester (9CI)
(CA INDEX NAME)



RN 68227-78-1 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 10 OF 22 HCA COPYRIGHT 2003 ACS

136:408991 Electrophotographic dry toners and image formation. Ohno, Manabu; Tosaka, Emi; Katsuta, Yasushi (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2002156795 A2 20020531, 32 pp. (Japanese). CODEN: JKXXAF.

n p a

AB APPLICATION: JP 2001-265873 20010903. PRIORITY: JP 2000-266065 20000901. The dry toners, which show good color and tone reprodn., light resistance, and charging property, contain at least (a) binder resin, (b) quinacridone dyes, (c) monoazo dyes, and (d) waxes at total content of (b) and (c) 1-20% and (b)/(c) wt. ratio 25:75-75:25 and show av. circularity measured by a flow particle image analyzer .gt;0.950. Electrophotog. image formation using the toner is also claimed. The toners matched both a heat-pressure fixing system using an endless film and that using electromagnetic induction.

IC ICM G03G009-09

ICS G03G009-08; G03G015-20

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

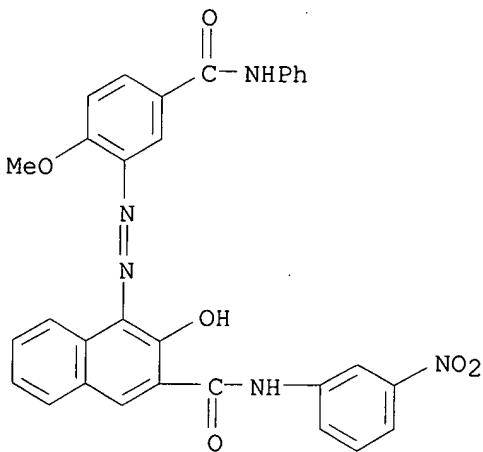
IT **Electrophotographic toners**
Electrophotography
(electrophotog. dry toners contg. quinacridone dyes and monoazo dyes at controlled ratio)

IT 980-26-7, C.I. Pigment Red 122 1047-16-1, C.I. Pigment Violet 19
3089-17-6, C.I. Pigment Red 202 5280-68-2, C.I. Pigment Red 146
6410-41-9, C.I. Pigment Red 5 **6448-96-0**, C.I. Pigment Red 31
12225-06-8, C.I. Pigment Red 176 **56396-10-2**, C.I.
Pigment Red 150 **67990-05-0**, C.I. Pigment Red 269
68227-78-1, C.I. Pigment Red 147 99402-80-9, C.I. Pigment Red 184
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. dry toners contg. quinacridone dyes and monoazo dyes at controlled ratio)

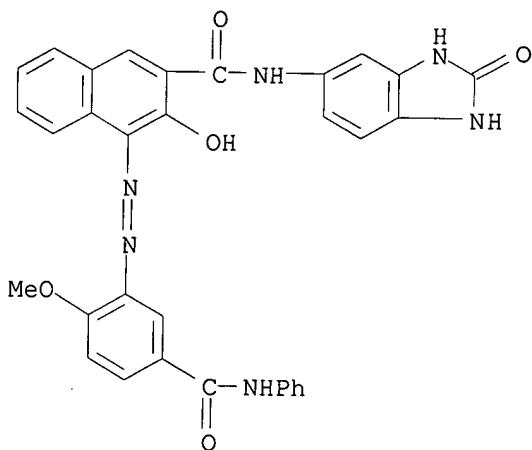
IT **6448-96-0**, C.I. Pigment Red 31 **12225-06-8**, C.I. Pigment Red 176 **56396-10-2**, C.I. Pigment Red 150 **67990-05-0**,
C.I. Pigment Red 269 **68227-78-1**, C.I. Pigment Red 147
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. dry toners contg. quinacridone dyes and monoazo dyes at controlled ratio)

RN 6448-96-0 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX NAME)

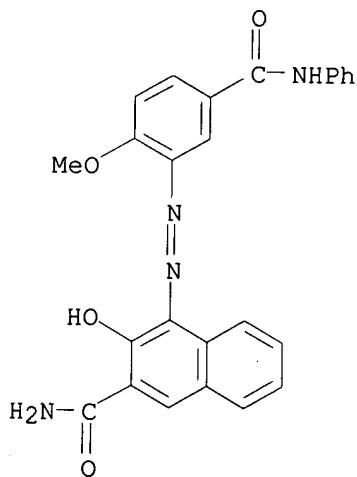


RN 12225-06-8 HCA
CN 2-Naphthalenecarboxamide, N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



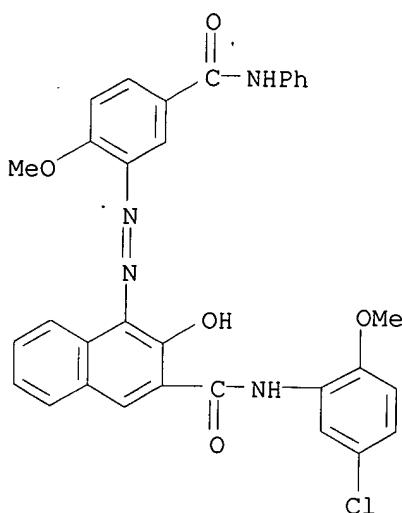
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



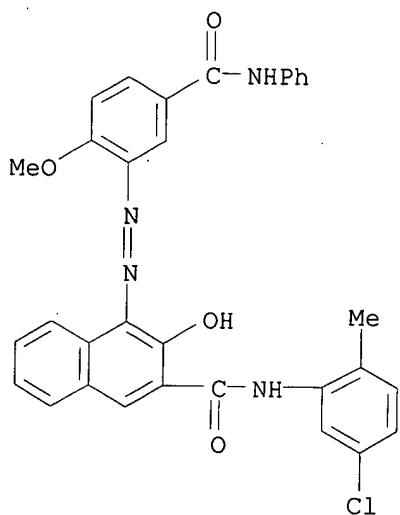
RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



RN 68227-78-1 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 11 OF 22 HCA COPYRIGHT 2003 ACS

136:316906 electrophotographic toners for image-forming method and image-forming apparatus. Kaya, Takaaki; Kotaki, Takaaki; Kanbayashi, Makoto; Mikuriya, Yushi; Kondo, Katsumi; Iida, Wakashi (Japan). U.S. Pat.

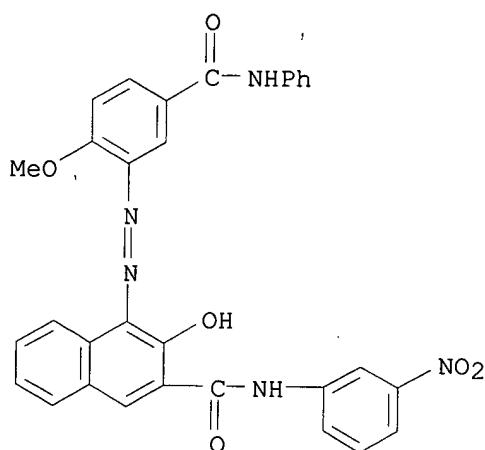
Appl. Publ. US 2002045114 A1 20020418, 117 pp. (English). CODEN: USXXCO.

APPLICATION: US 2001-899025 20010706. PRIORITY: JP 2000-206095 20000707; JP 2001-179605 20010614; JP 2001-179607 20010614; JP 2001-179608 20010614.

AB The present invention relates to an image-forming method and an image-forming app. which are applicable to laser beam color printers and color copying app., and more particularly to high-speed full-color image-forming method and app. In a two-component development system contg. a toner and a carrier, an a-Si photosensitive member having a diam. of from 20 mm-80 mm is used, the photosensitive member is electrostatically charged to have a surface potential of from 300-450 V

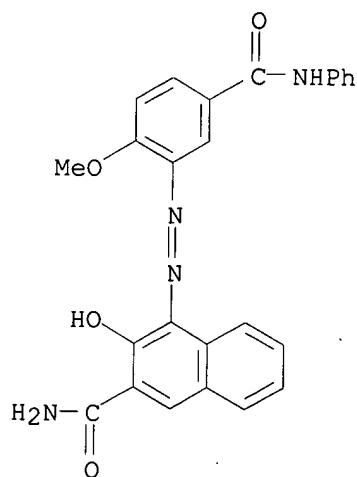
(abs. value), and yellow, magenta, cyan and black toners are used each of which have a wt.-av. particle diam. of from 4.0 .mu.m-10.0 .mu.m, and, under a condition that the carrier of the two-component developer has a 50% av. particle diam. of from 10 .mu.m-80 .mu.m and as image d. (D0.5) measured usually after the toner is fixed once when the quantity of unfixed toner on a transfer medium, M/S, is 0.5 mg/cm², have a coloring power of from 1.0-1.9, and in which the difference between a max. value and a min. value of D0.5 of yellow, magenta, cyan and black colors is from 0-0.5. This makes it possible to obtain high-quality images in a high image d. and a superior color reprodn.

- IC ICM G03G013-01
ICS G03G015-01
NCL 430045000
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT Electrophotographic carriers
Electrophotographic toners
(two-component development system for image-forming method and image-forming app. contg.)
IT 980-26-7, C.I. Pigment red 122 4531-49-1, C.I. Pigment yellow 17
5045-40-9, C.I. Pigment yellow 109 5280-68-2, C.I. Pigment red 146
5281-04-9, C.I. Pigment red 57.1 5580-57-4, C.I. Pigment yellow 93
6358-31-2, C.I. Pigment yellow 74 6410-41-9, C.I. Pigment red 5
6448-96-0, C.I. Pigment red 31 7023-61-2, C.I. Pigment red 48.2
7538-59-2, C.I. Pigment red 58.2 12014-93-6, C.I. Pigment red 265
12225-18-2, C.I. Pigment yellow 97 31837-42-0, C.I. Pigment yellow 151
51920-12-8, C.I. Pigment red 185 **56396-10-2**, C.I. Pigment red
150 **59487-23-9**, C.I. Pigment red 187 63661-26-7, C.I. Pigment
yellow 156 68016-05-7, C.I. Pigment red 245 68134-22-5, C.I. Pigment
yellow 154 **68227-78-1**, C.I. Pigment red 147 68516-73-4, C.I.
Pigment yellow 155 71832-85-4, C.I. Pigment yellow 168 76199-85-4,
C.I. Pigment yellow 185 76233-82-4, C.I. Pigment yellow 166
79953-85-8, C.I. Pigment yellow 128 84370-49-0 99402-80-9, C.I.
Pigment red 184 140114-63-2, C.I. Pigment red 238
RL: TEM (Technical or engineered material use); USES (Uses)
(colorant; prepн. toner for image-forming method and image-forming app.
contg.)
IT **6448-96-0**, C.I. Pigment red 31 **56396-10-2**, C.I. Pigment
red 150 **59487-23-9**, C.I. Pigment red 187 **68227-78-1**,
C.I. Pigment red 147
RL: TEM (Technical or engineered material use); USES (Uses)
(colorant; prepн. toner for image-forming method and image-forming app.
contg.)
RN 6448-96-0 HCA
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
[(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX
NAME)



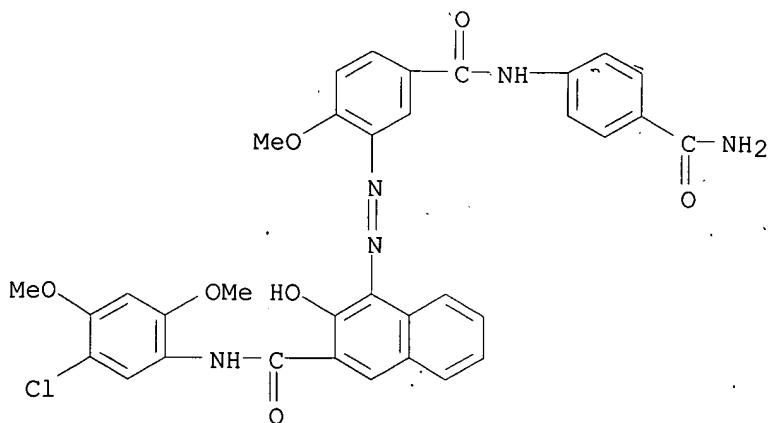
RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-(phenylamino)carbonyl]phenyl]azo- (9CI) (CA INDEX NAME)



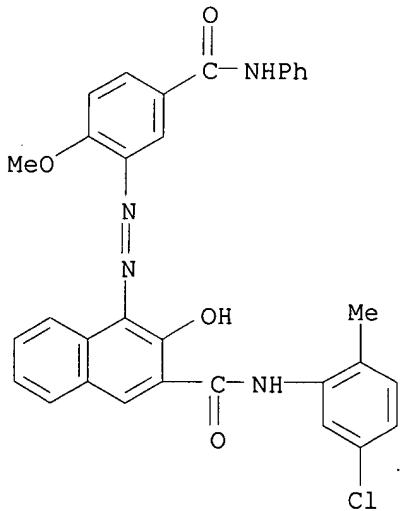
RN 59487-23-9 HCA

CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI) (CA INDEX NAME)



RN 68227-78-1 HCA

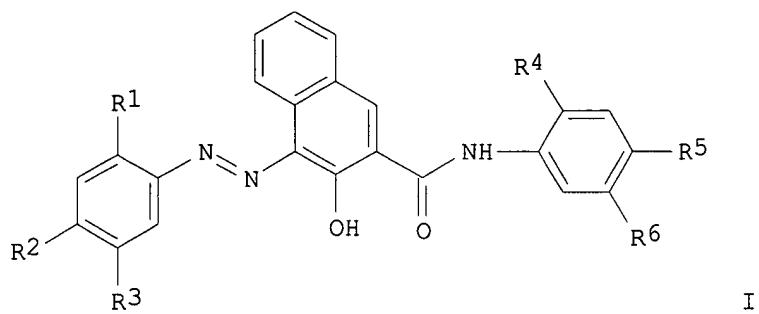
CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azido]- (9CI) (CA INDEX NAME)



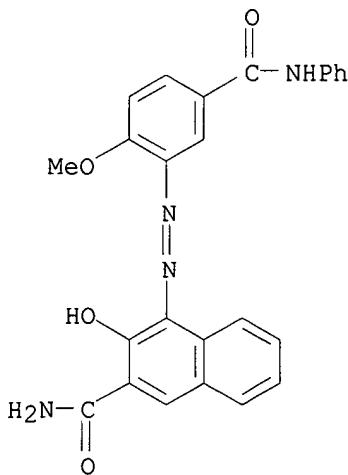
L40 ANSWER 12 OF 22 HCA COPYRIGHT 2003 ACS

136:286572 Toner for electrostatic latent image development, manufacture thereof, and image-forming method. Horiuchi, Kazutoshi; Soeda, Kaori; Nagase, Tatsuya; Shirase, Akizo; Kitani, Ryuji; Yamazaki, Hiroshi; Kitani, Tomoe (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2002099116 A2 20020405, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-200647 20010702. PRIORITY: JP 2000-220535 20000721.

GI



- AB The invention relates to a toner which does not change its color during the heat fixing even when a naphthol AS dye is used. The toner is prep'd. by fusing a colorant particle with a resin particle in an aq. medium, wherein the colorant particle is represented by I (R1 = H, halo, nitro, etc.; R2 = H, halo, nitro, Cl-8 alkyl, etc.; R3 = H, halo, CONHX; X = H, Cl-8 alkyl, etc.; R4 = H, halo, nitro, etc.; R5 = H, halo, nitro, etc.; R6 = H, halo, nitro, etc.).
- IC ICM G03G009-09
ICS G03G009-087
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41
- IT **Electrographic toners**
Electrophotographic toners
 (colorant particle contained in toner for electrostatic latent image development)
- IT 5280-68-2, C.I.Pigment Red 146 5281-04-9, C.I.Pigment Red 57:1
 6358-47-0, C.I.Pigment Red 114 6410-41-9, C.I.Pigment Red 5 6535-46-2,
 C.I.Pigment Red 112 **56396-10-2**, C.I.Pigment Red 150
 99402-80-9, C.I.Pigment Red 184
 RL: TEM (Technical or engineered material use); USES (Uses)
 (toner for electrostatic latent image development)
- IT **56396-10-2**, C.I.Pigment Red 150
 RL: TEM (Technical or engineered material use); USES (Uses)
 (toner for electrostatic latent image development)
- RN 56396-10-2 HCA
- CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 13 OF 22 HCA COPYRIGHT 2003 ACS

136:224166 Toner and image forming method. Tosaka, Emi; Fukushima, Motoya; Ohno, Manabu; Katsuta, Yasushi (Canon Kabushiki Kaisha, Japan). Eur. Pat. Appl. EP 1184730 A2 20020306, 76 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-120984 20010831. PRIORITY: JP 2000-266063 20000901; JP 2001-259247 20010829.

AB This invention disclosed a magenta toner with good color image forming performances and excellent in matching with various members of an electrophotog. app. This toner is produced from a binder resin, a wax component and a specific monoazo pigment compn. The monoazo pigment compn. is characterized by a principal monoazo pigment and certain amts. of a .beta.-naphthol deriv. and an arom. amine, which are used as starting materials for synthesizing the monoazo pigment.

IC ICM G03G009-09
ICS G03G009-097

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 41

IT **Electrophotographic toners**
(color toner contg. monoazo pigment compn.)
IT 6410-41-9P, C.I. Pigment Red 5 **6448-96-0P**, C.I. Pigment Red 31
12225-06-8P, C.I. Pigment Red 176 **56396-10-2P**, C.I.
Pigment Red 150 **67990-05-0P**, C.I. Pigment Red 269
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(monoazo pigment used in electrophotog. toner)
IT 5280-68-2, C.I. Pigment Red 146 10109-95-2 10291-28-8 41680-76-6
68227-78-1, C.I. Pigment Red 147
RL: RCT (Reactant); RACT (Reactant or reagent)

(starting material for prepg. quinacridone pigment used in color toner)

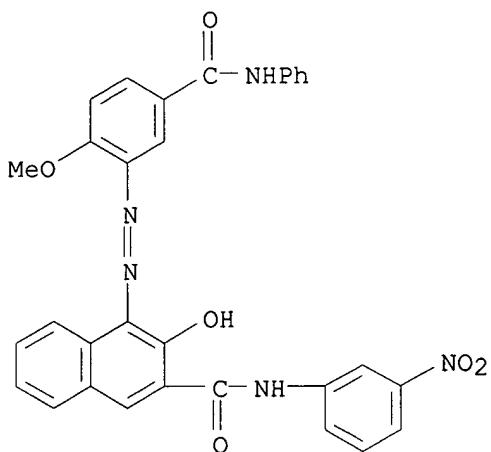
IT **6448-96-0P**, C.I. Pigment Red 31 **12225-06-8P**, C.I.
Pigment Red 176 **56396-10-2P**, C.I. Pigment Red 150
67990-05-0P, C.I. Pigment Red 269
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(monoazo pigment used in electrophotog. toner)

RN 6448-96-0 HCA

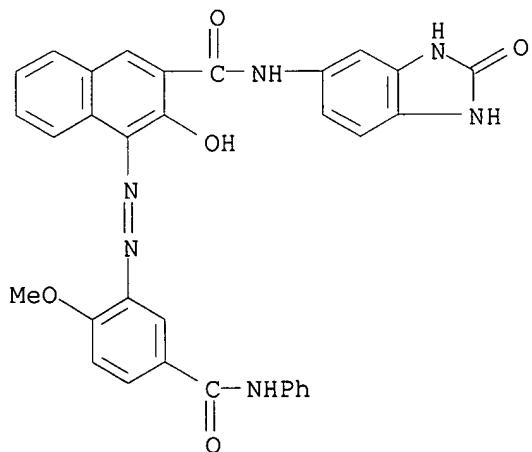
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-

[(phenylamino)carbonylphenyl]azo]-N- (3-nitrophenyl)- (9CI) (CA INDEX NAME)



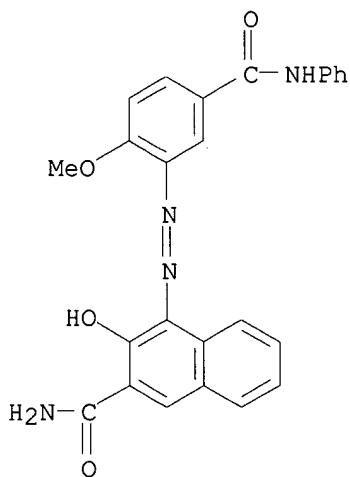
RN 12225-06-8 HCA

CN 2-Naphthalenecarboxamide, N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)

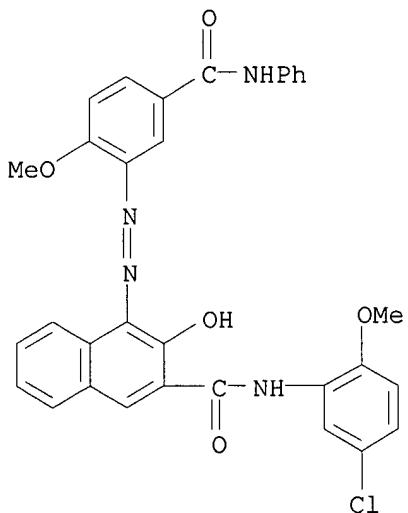


RN 56396-10-2 HCA

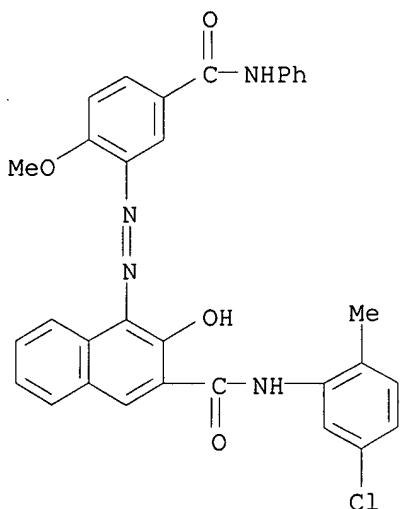
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



RN 67990-05-0 HCA
 CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



IT 68227-78-1, C.I. Pigment Red 147
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material for prep. quinacridone pigment used in color toner)
 RN 68227-78-1 HCA
 CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methylphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 14 OF 22 HCA COPYRIGHT 2003 ACS

136:126475 Magenta toner for color electrophotographic imaging with improved image quality. Kanbayashi, Makoto; Kotaki, Takaaki; Kondo, Katsumi; Ichikawa, Yasuhiro; Kaya, Takaaki; Iida, Wakashi; Itakura, Takayuki (Canon Kabushiki Kaisha, Japan). Eur. Pat. Appl. EP 1172705 A1 20020116, 62 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-116548 20010709. PRIORITY: JP 2000-208027 20000710; JP 2001-196746 20010628.

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* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to a magenta toner that can exhibit high minuteness even with use of heat-and-pressure fixing method in which any oil for preventing high temp. offset is not used or used in small quantity. The magenta toner contains at least a binder resin and a colorant; the magenta toner having a storage elastic modulus at a temp. of 80.degree., G'80, in the range from 1 .times. 106dN/m² to 1 .times. 108dN/m² and a storage elastic modulus at a temp. 120-180.degree., G'120-180, in the range 2 .times. 103dN/m²-1 .times. 106dN/m² and contg. at least a compd. selected from the group consisting of I (RD2=H, OMe; RD4=H, CONH₂; RD5=H, SO₂NET₂, CONHPh, CONH₂ or CONHC₆H₄(p)CONH₂; RK2=H, Ome, Me, OEt; RK4=H, OME, or Cl and RK5=H, Ome, Cl, NO₂), II (RD2=H or SO₃⁻; RD4=H, Cl, or Me; RD5=H, Cl, Me, Et, or SO₃⁻ and M=Ba, Ca, Sr, Mn or Mg provided that one of RD2 and RD5 is SO₃⁻), and III (RD1 and RD2=H or Me each). The toner has superior highlight reproducibility and running stability, heat-resistance, anti-blocking properties and solid image uniformity, and does not cause fogging.

IC ICM G03G009-09
ICS G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Electrophotographic toners
(magenta toner having superior low-temp. fixing performance and contg.

IT hybrid/polyester/vinyl resin and azonaphthol/quinacridone pigment)
 147-14-8, Copper phthalocyanine 980-26-7 1047-16-1 5280-68-2
 5281-04-9 6410-41-9 **6448-96-0** 9002-88-4, Polyethylene
59487-23-9 67990-05-0

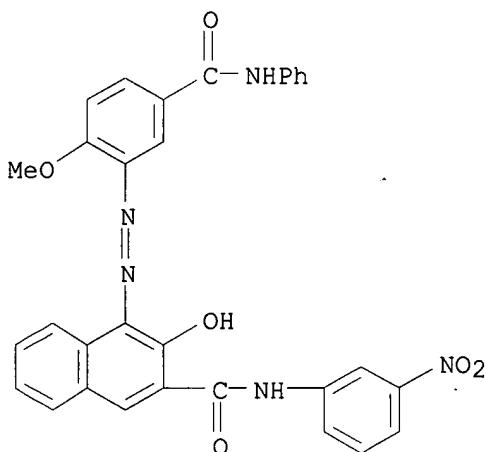
RL: TEM (Technical or engineered material use); USES (Uses)
 (magenta pigment; magenta toner having superior low-temp. fixing
 performance and contg. hybrid/polyester/vinyl resin and
 azonaphthol/quinacridone pigment)

IT **6448-96-0 59487-23-9 67990-05-0**

RL: TEM (Technical or engineered material use); USES (Uses)
 (magenta pigment; magenta toner having superior low-temp. fixing
 performance and contg. hybrid/polyester/vinyl resin and
 azonaphthol/quinacridone pigment)

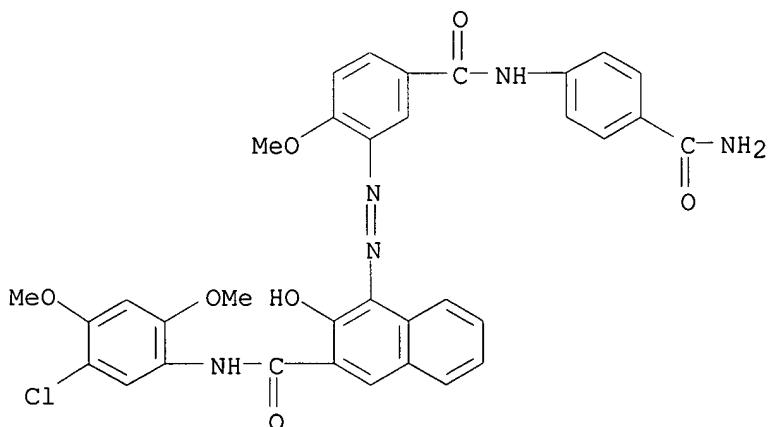
RN 6448-96-0 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
 [(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX
 NAME)



RN 59487-23-9 HCA

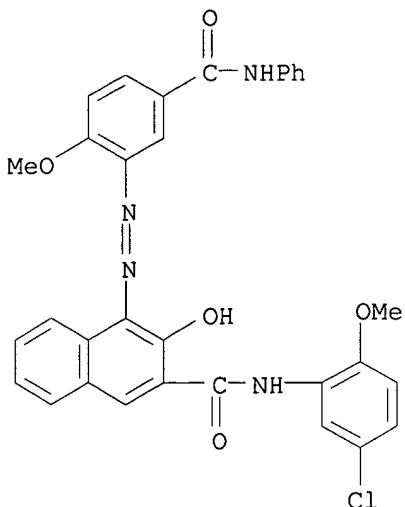
CN 2-Naphthalenecarboxamide, 4-[[5-[[[4-(aminocarbonyl)phenyl]amino]carbonyl]-
 2-methoxyphenyl]azo]-N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy- (9CI)
 (CA INDEX NAME)



RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-

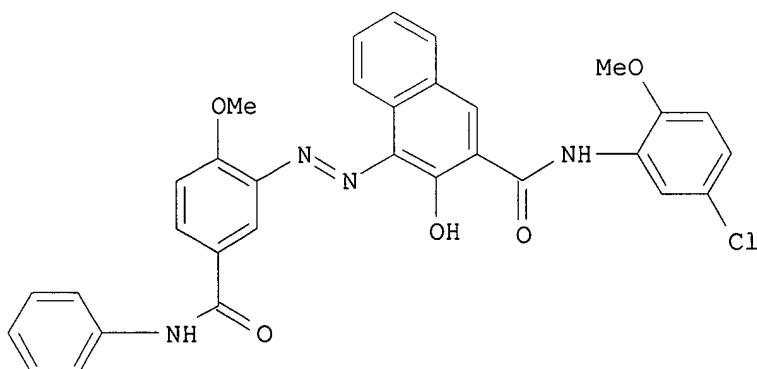
methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 15 OF 22 HCA COPYRIGHT 2003 ACS

135:378708 Electrophotographic magenta toner containing azo dye. Hidaka,
Yasuhiro (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001324836 A2
20011122, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-143271
20000516.

GI

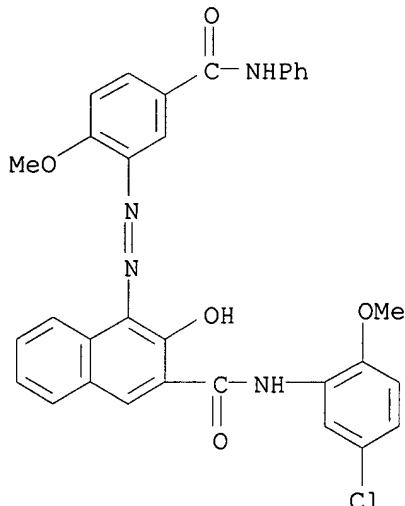


I

- AB The magenta toner contains a binder and I. Full color images are formed by using the magenta toner, a yellow toner, a cyan toner, and a black toner. The toner shows good charging property, transparency, and gives high d. images without fog.
- IC ICM G03G009-09
ICS G03G009-087; G03G009-097; G03G015-01; C09B029-20
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
- IT **Electrophotographic toners**
(magenta; electrophotog. magenta toner contg. azo dye)
- IT 67990-05-0, Permanent Carmine 3810

IT RL: TEM (Technical or engineered material use); USES (Uses)
 (Permanent Carmine 3810; electrophotog. magenta toner contg. azo dye)
67990-05-0, Permanent Carmine 3810
 RL: TEM (Technical or engineered material use); USES (Uses)
 (Permanent Carmine 3810; electrophotog. magenta toner contg. azo dye)

RN 67990-05-0 HCA
 CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 16 OF 22 HCA COPYRIGHT 2003 ACS

135:325224 Electrostatographic magenta toners containing specific binder resin and specific colorant. Ishikawa, Tomoko; Harada, Kensuke; Akai, Hideko (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001290309 A2 20011019, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-105830 20000407.

AB The title electrophotog. toners contains a binder resin and a magenta colorant, wherein the colorant has a structure of a central hydroxyaryl group connected with two main aryl groups with an azo group and an amide group and wherein the THF sol. portion of the binder resin has a main peak at 5,000-90,000 and 10,000-1,000,000 wt. av. mol. wt according to GPC anal. The toner, which contains the binder resin of the aforementioned mol. wt. and the magenta colorant, provides the good color reprodn., the high transparency on OHP sheet, and the good offset-resistance.

IC ICM G03G009-09

ICS G03G009-087; G03G009-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(electrostatog. magenta toners contg. specific binder resin and specific colorant)

IT **67990-05-0**

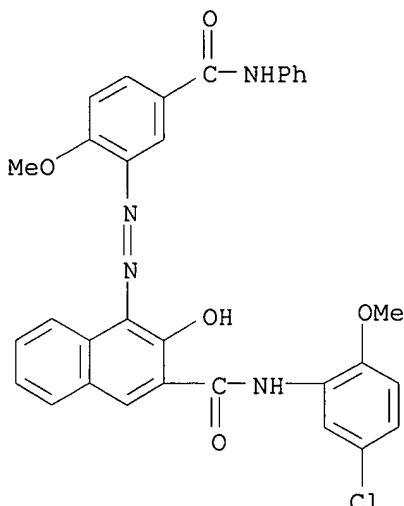
RL: TEM (Technical or engineered material use); USES (Uses)
 (colorant in electrophotog. magenta toner)

IT **67990-05-0**

RL: TEM (Technical or engineered material use); USES (Uses)
 (colorant in electrophotog. magenta toner)

RN 67990-05-0 HCA

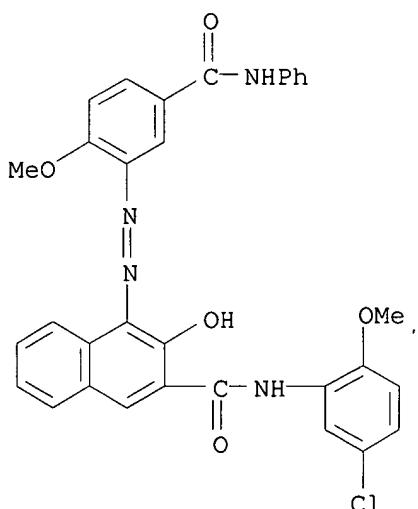
CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 17 OF 22 HCA COPYRIGHT 2003 ACS

135:325221 Electrophotographic cartridge image-forming method and image-forming apparatus. Ishikawa, Tomoko; Ando, Osamu; Nozomi, Mamoru; Fujii, Akiteru (Mitsubishi Chemical Corporation, Japan). Eur. Pat. Appl. EP 1146397 A1 20011017, 53 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (English). CODEN: EPXXDW. APPLICATION: EP 2001-109051 20010411. PRIORITY: JP 2000-110420 20000412.

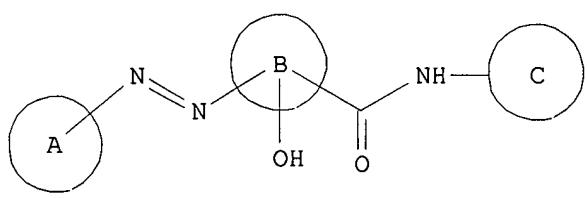
- AB An image-forming app. comprises at least a photoreceptor, a toner and an exposure device, wherein the photoreceptor has a photosensitive layer contg. oxytitanium phthalocyanine having a distinct diffraction peak at a Bragg angle ($2.\theta\alpha..+-0.2$) of 27.3.degree. in the x-ray diffraction by CuK. α -ray, and the toner has a vol. av. particle diam. (D_v) of 3-8 .mu.m and satisfies a relation of $1.0 \leq D_v/D_n \leq 1.3$ where D_v is the vol. av. particle diam. and D_n is the no. av. particle diam.
- IC ICM G03G005-06
ICS G03G009-08
- CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
- IT Electrophotographic photoconductors (photoreceptors)
Electrophotographic toners
 (electrophotog. cartridge image-forming method and image-forming app.)
- IT 67990-05-0
RL: TEM (Technical or engineered material use); USES (Uses)
 (as C.I. Pigment Red 238,; colorant in electrophotog. toners)
- IT 67990-05-0
RL: TEM (Technical or engineered material use); USES (Uses)
 (as C.I. Pigment Red 238,; colorant in electrophotog. toners)
- RN 67990-05-0 HCA
- CN 2-Naphthalene carboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 18 OF 22 HCA COPYRIGHT 2003 ACS

135:310859 Electrophotographic toner suitable for producing sharp full color image with improved color reproduction on OHP (overhead projector) sheet. Ishikawa, Tomoko; Harada, Kensuke; Akai, Hideko (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001281932 A2 20011010, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-96748 20000331.

GI



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AB The invention relates to an electrophotog. magenta toner which contains a pigment represented by a general formula I (A, B, C = arom. ring may contain substituent) and a wax substance showing a DSC (differential scanning calorimetry) peak at 50-130.degree.. The toner shows excellent hot-offset-resistance and optical transmission suitable for OHP sheets.

IC ICM G03G009-09

ICS G03G009-08; G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

Overhead projection slides

(electrophotog. magenta toner and development method for producing sharp full color image with improved color reprodn. on OHP sheet)

IT 67990-05-0

RL: TEM (Technical or engineered material use); USES (Uses)

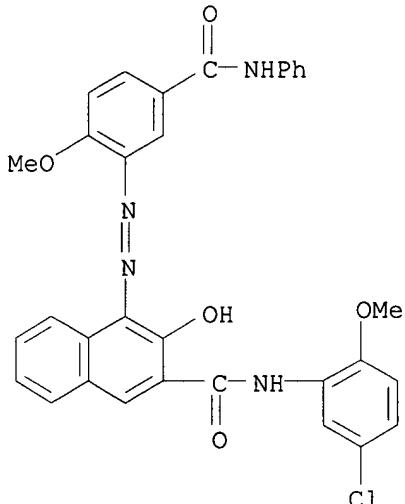
(pigment in electrophotog. magenta toner and development method for producing sharp full color image with improved color reprodn. on OHP sheet)

IT 67990-05-0

RL: TEM (Technical or engineered material use); USES (Uses)
 (pigment in electrophotog. magenta toner and development method for
 producing sharp full color image with improved color reprodn. on OHP
 sheet)

RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 19 OF 22 HCA COPYRIGHT 2003 ACS

135:310844 Electrophotographic toner and development method for producing sharp full color image with improved color reproduction. Ishikawa, Tomoko; Harada, Kensuke; Akai, Hideko; Takahashi, Noriaki (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001281933 A2 20011010, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-96749 20000331.

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The invention relates to an electrophotog. magenta toner which contains a pigment represented by a general formula I (A, B, C = arom. ring may contain substituent) and a charge controlling agent represented by a general formula II (D, E, F, G = arom. ring may contain substituent; X = divalent connecting group, single bond). The toner is esp. suitable for forming images on OHP (overhead projector) sheets.

IC ICM G03G009-09

ICS G03G009-097; G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Electrophotographic development

Electrophotographic toners

Overhead projection slides

(electrophotog. magenta toner and development method for producing sharp full color image with improved color reprodn. on OHP sheet)

IT 67990-05-0

RL: TEM (Technical or engineered material use); USES (Uses)

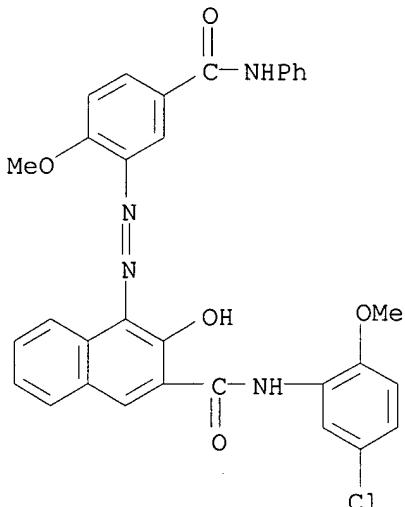
(pigment in electrophotog. magenta toner and development method for producing sharp full color image with improved color reprodn. on OHP sheet)

IT 67990-05-0

RL: TEM (Technical or engineered material use); USES (Uses)
 (pigment in electrophotog. magenta toner and development method for producing sharp full color image with improved color reprodn. on OHP sheet)

RN 67990-05-0 HCA

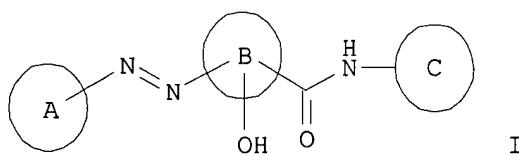
CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



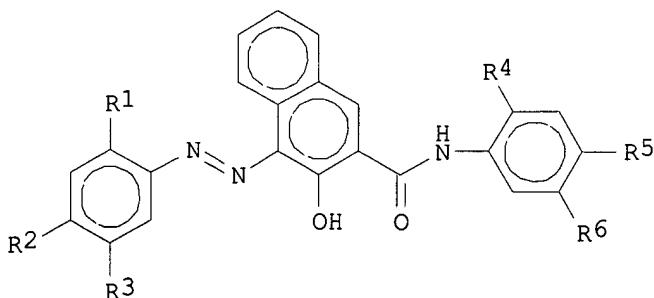
L40 ANSWER 20 OF 22 HCA COPYRIGHT 2003 ACS

135:233863 Electrophotographic magenta toner. Ishikawa, Tomoko; Harada, Kensuke; Tsurumori, Masami; Noriaki (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001249498 A2 20010914, 6 pp.
 (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-61701 20000307.

GI



I



II

AB The toner comprises a binder resin and a colorant I [A, B, C = (substituted) arom. ring]. The colorant may be II [R1, R4-6 = H, halo, nitro, cyano, C₁to_{req.5} hydrocarbon, C₁to_{req.5} alkoxy; R2-3 = H, halo, nitro, cyano, C₁to_{req.5} hydrocarbon, C₁to_{req.5} alkoxy, (substituted) aminosulfonyl, aminocarbonyl, .gt;_{req.1} of R2-3 is aminosulfonyl or aminocarbonyl]. The pigment is uniformly dispersed in the toner and the toner comprises fine particles with sharp particle size distribution.

IC ICM G03G009-09
ICS G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

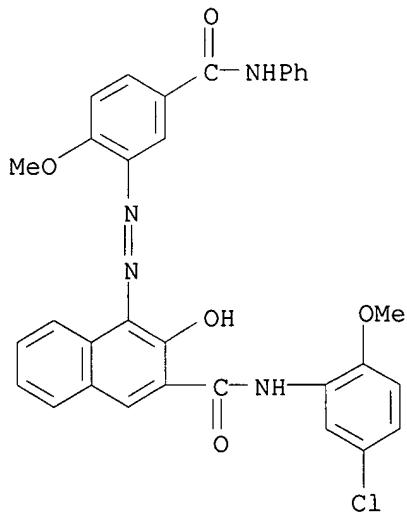
IT **Electrophotographic toners**
(electrophotog. magenta toner contg. particle size-controlled azo pigment)

IT **67990-05-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. magenta toner contg. azo pigment)

IT **67990-05-0**
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. magenta toner contg. azo pigment)

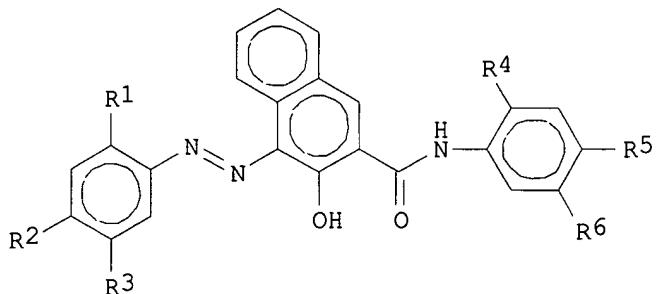
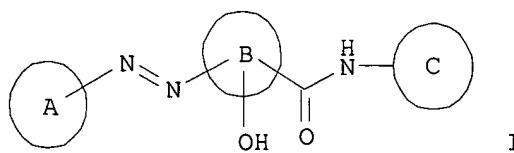
RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 21 OF 22 HCA COPYRIGHT 2003 ACS
135:233862 Electrophotographic magenta toner. Ishikawa, Tomoko; Harada, Kensuke; Tsurumori, Masami; Takahashi, Noriaki (Mitsubishi Chemical Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001249497 A2 20010914, 9 pp.
(Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-61700 20000307.

GI



AB The magenta toner has vol. av. particle size 2.5-6.5 .mu.m and comprises a binder resin and a magenta pigment with vol. av. particle size 0.05-0.3 .mu.m contg. I [A, B, C = (substituted) arom. ring]. The magenta pigment may be II [R1, R4-6 = H, halo, nitro, cyano, C₁-C₅ hydrocarbon, C₁-C₅ alkoxy; R2-3 = H, halo, nitro, cyano, C₁-C₅ hydrocarbon, C₁-C₅ alkoxy, (substituted) aminosulfonyl, aminocarbonyl, .gtreq.1 of R2-3 is aminosulfonyl or aminocarbonyl]. In manuf. of the toner by aggregating the emulsified binder resin particles and dispersed magenta pigment I, the vol. av. particle size of the magenta pigment in the dispersion is 0.02-0.2 .mu.m. The toner shows good transparency, spectral reflectivity, and gives clear images with good resoln. and color reprodn.

ICM G03G009-09

ICS G03G009-08; G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(electrophotog. magenta toner contg. particle size-controlled azo pigment)

IT **67990-05-0**

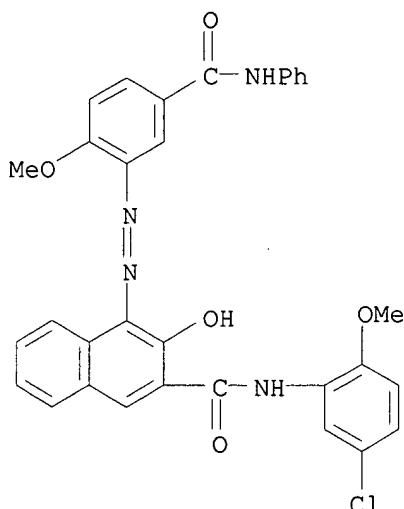
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. magenta toner contg. particle size-controlled azo pigment)

IT **67990-05-0**

RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. magenta toner contg. particle size-controlled azo pigment)

RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L40 ANSWER 22 OF 22 HCA COPYRIGHT 2003 ACS

135:181712 Manufacture of polyester fine particles. Morimoto, Kiyofumi; Horiuchi, Takahiro (Sharp Corp., Japan). Jpn. Kokai Tokyo Koho JP 2001226473 A2 20010821, 32 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-178946 20000614. PRIORITY: JP 1999-352211 19991210.

AB Polyester fine particles, which have potential use in toner of an electrophotog. image-forming instrument and in spacer of a liq. crystal display, are manufd. from a diol component comprising an alkanediol or an alkoxy diol having 1 to \approx 12 carbon atoms and a diacid component comprising a bis(halocarbonyl)benzene or a deriv. of fumaric acid dihalide by contacting the particles contg. one of the polymer-forming component with supersatd. vapor of another polymer-forming component and heating. The polymn. occurs on the surface of the particles to form a polymer membrane and can be carried out repeatedly.

IC ICM C08G063-78

ICS C08G063-40; C08G063-56

CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 37, 74

IT **Electrophotographic toners**

(manuf. of polyester fine particles for toner)

IT 147-14-8, C.I.Pigment blue 15 574-93-6, Phthalocyanine 980-26-7, C.I.Pigment red 122 5567-15-7, C.I.Pigment yellow 83 6041-94-7, C.I.Pigment red 2 **12225-06-8**, C.I.Pigment red 176 12237-24-0, Vali Fast blue 2606 13463-67-7, Titania, uses
RL: MOA (Modifier or additive use); USES (Uses)

(manuf. of polyester fine particles)

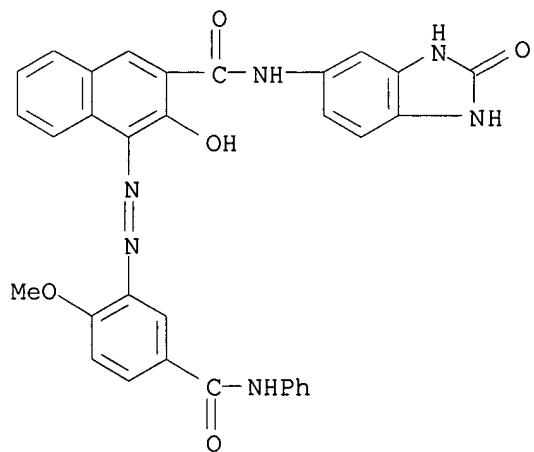
IT **12225-06-8**, C.I.Pigment red 176

RL: MOA (Modifier or additive use); USES (Uses)

(manuf. of polyester fine particles)

RN 12225-06-8 HCA

CN 2-Naphthalenecarboxamide, N-(2,3-dihydro-2-oxo-1H-benzimidazol-5-yl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

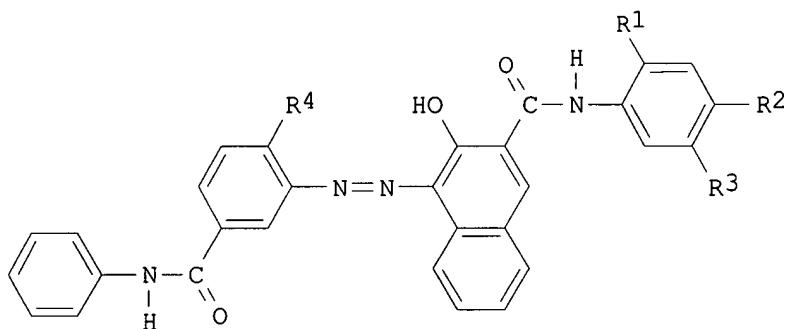


=> d L43 1-9 cbib abs hitind hitstr

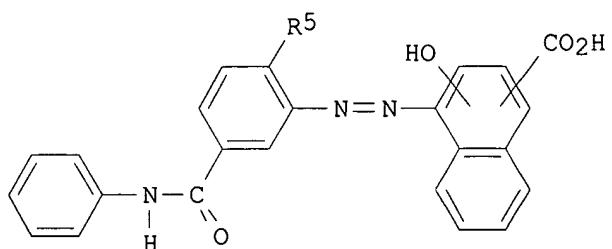
L43 ANSWER 1 OF 9 HCA COPYRIGHT 2003 ACS

133:224244 Monoazo red pigment composition and magenta color toner for electrophotographic application. Ogawa, Satoshi; Taketani, Mitsumasa (Sanyo Color Works, Ltd., Japan). Jpn. Kokai Tokyo Koho JP 2000248191 A2 20000912, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-54052 19990302.

GI



I



II

AB Title pigment compn. comprises compd. I and a compd. selected from from compd. II, its calcium salt, strontium salt, zinc salt, barium salt, manganese salt, and aluminum salt ($R^1, R^4, R^5 = H, OCmH2m+1, CmH2m+1; m =$

1-10; R₂ = OC_mH_{2m+1}, halogen, H; R₃ = NO₂, halogen, OC_mH_{2m+1}, H).

IC ICM C09B067-20
 ICS C09B067-20; C09B029-20; C09B063-00; G03G009-09

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitzers)

Section cross-reference(s): 74

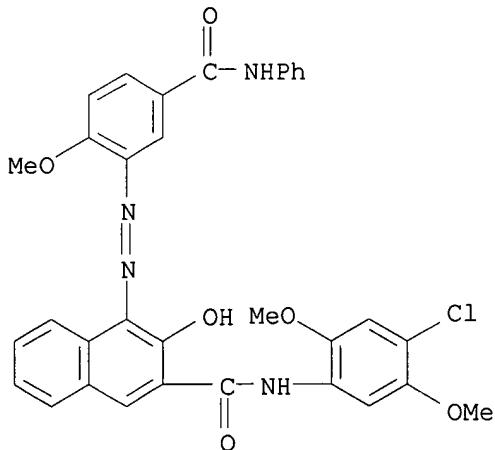
IT Electrographic developers
 Electrographic developers
 Electrographic developers
Electrographic toners
Electrographic toners
Electrographic toners
 (color developer toners; prepn. of monoazo red pigment compn. for magenta color toner)

IT 5280-68-2P 6410-29-3P 18048-33-4P 67990-05-0P 68227-78-1P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (prep. of monoazo red pigment compn. for magenta color toner)

IT 5280-68-2P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (prep. of monoazo red pigment compn. for magenta color toner)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 2 OF 9 HCA COPYRIGHT 2003 ACS

133:112376 Color toner containing benzimidazolone, copper phthalocyanine, and Naphthol Carmine and image forming method using it. Kuramoto, Shinichi; Kawasaki, Kanjiro; Sugimoto, Shoichi (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000199982 A2 20000718, 23 pp. (Japanese).
 CODEN: JKXXAF. APPLICATION: JP 1999-315944 19991105. PRIORITY: JP 1998-315029 19981105.

AB The color toner comprising at least a binder resin and a pigment, is characterized by the following: hexagon area is .gtoreq.13600, formed by connecting points on a*, b*, and c* coordinates, where (1) c* is .gtoreq.80 when a yellow and a magenta toner layer with each 8 g/m² are laminated; and (2) points on a* - b* coordinates (defined in JIS Z 8729), when each yellow, magenta, and cyan single layer with 8 g/m² is formed and two of them are laminated. The color toner comprises the yellow toner contg. a benzimidazolone group pigment, the cyan toner contg. .beta. Cu

phthalocyanine, and the magenta toner contg. Naphthol Carmine F 6B, or Naphthol Carmine F 6B and Naphthol Carmine FBB. It shows balanced color reprodn. quality in red and blue regions and improved light stability.

IC ICM G03G009-09
ICS G03G009-087; G03G009-097

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

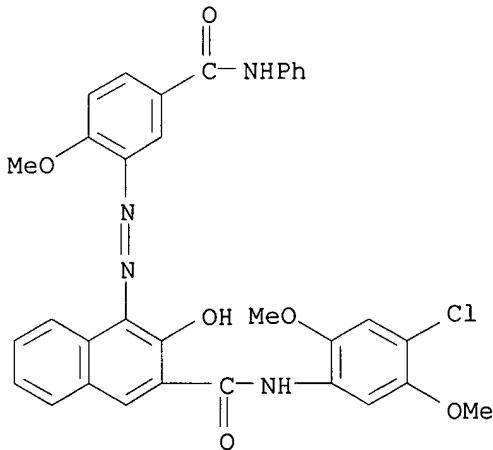
IT **Electrophotographic toners**
(electrophotog. toner contg. benzimidazolone, copper phthalocyanine, or Naphthol Carmine)

IT 147-14-8, Copper phthalocyanine 5280-68-2 68227-78-1
77804-81-0 283604-97-7, Naphthol Carmine FBB
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. toner contg. benzimidazolone, copper phthalocyanine, or Naphthol Carmine)

IT **5280-68-2**
RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. toner contg. benzimidazolone, copper phthalocyanine, or Naphthol Carmine)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 3 OF 9 HCA COPYRIGHT 2003 ACS
132:224377 Dispersing agents for pigments in inks and toners. Weingart, Franz; Raether, Roman Benedikt; Bauer, Stephan; Hees, Ulrike; Mielke, Manfred (BASF A.-G., Germany). Ger. Offen. DE 19842952 A1 20000323, 14 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1998-19842952 19980918.

AB Dispersing agents are described comprising the reaction products of (i) a di- or polyfunctional isocyanate with (ii) an XH-terminated polymer where X is COO, O, S or NR1 and R1 is H or C1-6-alkyl; and either (iii) a YH-terminated homopolymer of an N-vinylamide, N-vinyllactam, vinyl or allyl-substituted N-contg. heterocycle or a copolymer of .gtoreq.1 of these monomers where Y is COO, O, S or NR2 and R2 is H or a C1-6-alkyl; or (iv) a YH-contg. org. phosphonic acid ester. The dispersing agents are suitable for dispersing pigments in ink-jet inks or toners.

IC ICM B01F017-52
ICS C08G018-62; C08G018-48; C08G018-38; C09B067-20; C09B067-22; C09D017-00; C09D011-02; G03G009-08

CC 48-11 (Unit Operations and Processes)

Section cross-reference(s): 35, 41, 42, 74

IT Dispersing agents

Electrographic toners

Electrophotographic toners

Pigments, nonbiological

 (dispersing agents for pigments in inks and toners)

IT 79-41-4D, Methacrylic acid, alkyl derivs., polymers, reaction products with polyisocyanates and N-contg. heterocycle polymers 88-12-0D, polymers, reaction products with polyisocyanates and OH-terminated polymers 147-14-8, .beta.-Copper phthalocyanine blue 980-26-7, Pigment red 122 1072-63-5D, N-Vinylimidazole, polymers, reaction products with polyisocyanates and OH-terminated polymers 2235-00-9D, N-Vinylcaprolactam, polymers, reaction products with polyisocyanates and OH-terminated polymers 2781-11-5D, Fyrol 6, reaction products with alkoxylated alcs. and polyisocyanates **5280-68-2**, Pigment red 146 5281-04-9, Pigment red 57:1 9003-39-8D, Polyvinylpyrrolidone, reaction products with alkoxylated alcs. or OH-terminated polymers and polyisocyanates 9003-39-8D, N-Vinylpyrrolidone, homopolymer, reaction products with polyisocyanates and OH-terminated polymers 9004-74-4D, Polyethylene glycol, monomethyl ether, reaction products with polyisocyanates and N-contg. heterocycle polymers 13162-05-5D, N-Vinylformamide, polymers, reaction products with polyisocyanates and OH-terminated polymers 13598-36-2D, Phosphonic acid, derivs., esters, reaction products with alkoxylated alcs. and polyisocyanates 25189-83-7D, N-Vinylcaprolactam, homopolymer, reaction products with polyisocyanates and OH-terminated polymers 25232-42-2D, N-Vinylimidazole, homopolymer, reaction products with polyisocyanates and OH-terminated polymers 25608-33-7D, Butylmethacrylate-methylmethacrylate copolymer, reaction products with polyisocyanates and N-contg. heterocycle polymers 30125-47-4, Pigment yellow 138 36888-99-0, Isoindoline yellow 72018-12-3D, N-Vinylformamide, homopolymer, reaction products with polyisocyanates and OH-terminated polymers 76199-85-4, Pigment yellow 185 102381-24-8D, reaction products with polyisocyanates and N-contg. heterocycle polymers 245082-80-8D, Basonat HB 100, reaction products with OH-terminated polymers and N-contg. heterocycle polymers
RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

 (dispersing agents for pigments in inks and toners)

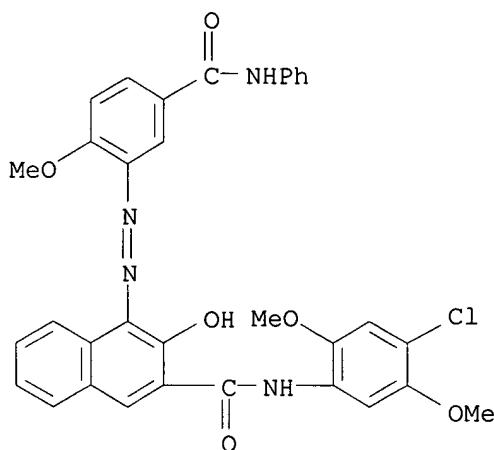
IT **5280-68-2**, Pigment red 146

RL: NUU (Other use, unclassified); TEM (Technical or engineered material use); USES (Uses)

 (dispersing agents for pigments in inks and toners)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo)- (9CI) (CA INDEX NAME)



L43 ANSWER 4 OF 9 HCA COPYRIGHT 2003 ACS

132:214766 Pigment for toners, pre-treatment of same, toner using same, and manufacture of the toner. Kuroda, Noboru; Suzuki, Kosuke; Yakuchi, Hiroshi; Kinoshita, Nobutaka; Miyamoto, Satoshi (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000081736 A2 20000321, 15 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-108477 19990415. PRIORITY: JP 1998-106463 19980416; JP 1998-180678 19980626.

AB The title pigment, used in toners comprising a pigment and a binder resin, contains a low-mol.-wt. substance having a lower m.p. and a smaller melt viscosity than the binder resin, which is oil-absorbed (absorbed) therein. A pigment is mixed with the low-mol.-wt. substance in a powdery state followed by heat-treating at a temp. of .gtoreq.20.degree. higher than the m.p. of the substance to fuse the mixt. to give a pre-treated pigment. The pre-treated pigment, a binder resin, a charge-controlling agent, and additives are melt-kneaded, pulverized, and classified to give a toner. The toner shows improved coloring properties and transparency when used as a color toner and high vol. sp. resistivity when used as a black toner.

IC ICM G03G009-09

ICS G03G009-097; G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Electrophotographic toners

(electrophotog. toner using oil-absorbed pigment)

IT 147-14-8, C.I. Pigment Blue 15 980-26-7, C.I. Pigment Red 122
1047-16-1, C.I. Pigment Violet 19 4531-49-1, C.I. Pigment Yellow 17
5281-04-9, C.I. Pigment Red 57:1 7023-61-2, C.I. Pigment Red 48:2
12286-66-7, C.I. Pigment Yellow 62 15782-05-5, C.I. Pigment Red 48:3
56396-10-2, C.I. Pigment Red 150 68227-78-1, C.I. Pigment Red
147 71832-85-4, C.I. Pigment Yellow 168 99402-80-9, C.I. Pigment Red
184 140114-63-2, C.I. Pigment Red 238

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electrophotog. toner using oil-absorbed pigment)

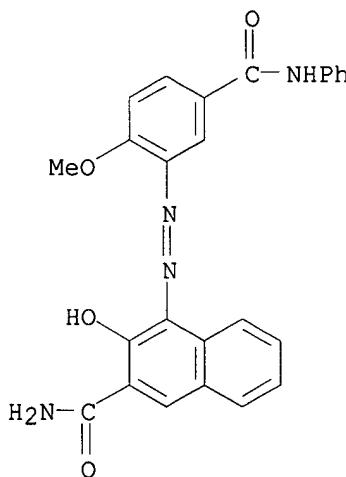
IT **56396-10-2**, C.I. Pigment Red 150

RL: PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electrophotog. toner using oil-absorbed pigment)

RN 56396-10-2 HCA

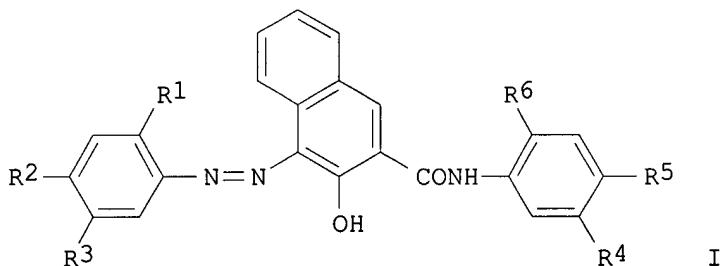
CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 5 OF 9 HCA COPYRIGHT 2003 ACS

132:100423 Positive charging electrophotographic toner with excellent durability. Sata, Shinichi; Hidaka, Yasuhiro; Shirai, Eiji (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2000019782 A2 20000121, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-186619 19980701.

GI



AB The title pos. charging electrophotog. toner comprises a binder resin and a compd. represented by a general formula I (R1-6 = H, Cl, Me, methoxy, nitro, -CONH₂, -CONHC₆H₅). The toner is black toner.

IC ICM G03G009-097

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**

(pos. charging electrophotog. toner with excellent durability)

IT 5280-68-2, Pigment red 146

RL: TEM (Technical or engineered material use); USES (Uses)
(C.I.Pigment Red 146; in pos. charging electrophotog. toner with excellent durability)

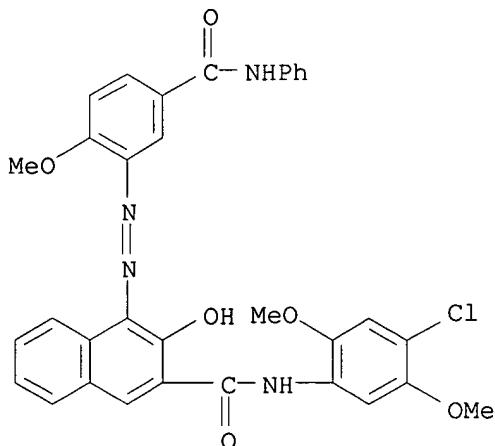
IT 5280-68-2, Pigment red 146

RL: TEM (Technical or engineered material use); USES (Uses)
(C.I.Pigment Red 146; in pos. charging electrophotog. toner with excellent durability)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-

methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 6 OF 9 HCA COPYRIGHT 2003 ACS

131:163356 Electrophotographic process using colored toner providing color images with high density and resolving power. Tsubushi, Kazuo; Asami, Takeshi; Ishikawa, Aiko (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11212305 A2 **19990806** Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-113491 19980423. PRIORITY: JP 1997-321295 19971121.

AB In the electrostatic image forming process using toner comprising a colorant and a dispersant, the toner contains 5-100 wt.% solid component, and, as a colorant, yellow disazo pigments, a magenta Carmine 6B or quinacridone pigment, cyan phthalocyanine pigments, and a carbon black pigment. The toner provides color images with high d. and resolving power and improved fixability and gloss and without background stains.

IC ICM G03G009-12
ICS G03G005-147

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrophotographic toners**
(liq.; solid component content-controlled electrophotog. liq. toner giving full-color images)

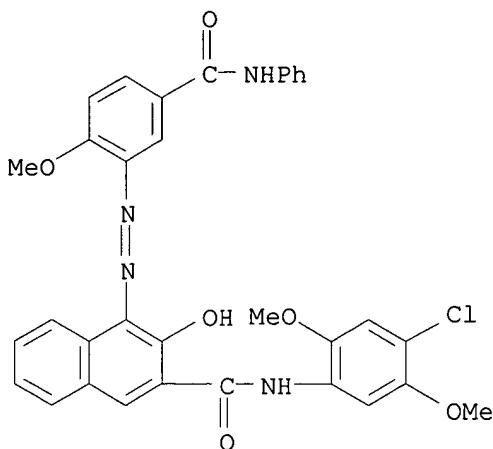
IT 980-26-7, Pigment Red 122 **5280-68-2**, Pigment Red 146
6358-85-6, Pigment Yellow 12 25086-15-1, Methacrylic acid-methyl methacrylate copolymer 28851-51-6, Glycidyl methacrylate-lauryl methacrylate copolymer 237386-64-0 237386-65-1 237386-66-2
237386-67-3 237391-95-6 237391-96-7

RL: TEM (Technical or engineered material use); USES (Uses)
(solid component content-controlled electrophotog. liq. toner giving full-color images)

IT **5280-68-2**, Pigment Red 146
RL: TEM (Technical or engineered material use); USES (Uses)
(solid component content-controlled electrophotog. liq. toner giving full-color images)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 7 OF 9 HCA COPYRIGHT 2003 ACS

130:215831 Electrophotographic imaging method and electrophotography developer. Tsubushi, Kazuo; Asami, Takeshi (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11073025 A2 **19990316** Heisei, 12 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-167806 19980602. PRIORITY: JP 1997-172764 19970616.

AB The electrophotog. imaging method comprises (a) a process to squeeze excessive developers from an image-bearing electrophotog. photoreceptor, (b) a process to charge the toner images, (c) a process to transfer the toner images from the electrophotog. photoreceptor onto an intermediate transfer means, and (d) a process to transfer the toner images from the intermediate transfer means onto an image receptor means. The electrophotog. toner comprises a specific pigment and a specific resin.

IC ICM G03G015-10

ICS G03G009-12; G03G009-13; G03G015-01

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT Electrophotographic development

Electrophotographic toners

(electrophotog. imaging method and electrophotog. developer)

IT 980-26-7, Pigment red 122 **5280-68-2**, Pigment red 146

6358-85-6, Pigment yellow 12 27401-06-5, Methacrylic acid-stearyl methacrylate copolymer 166270-16-2, Glycidyl methacrylate-lauryl methacrylate-styrene copolymer 188827-56-7

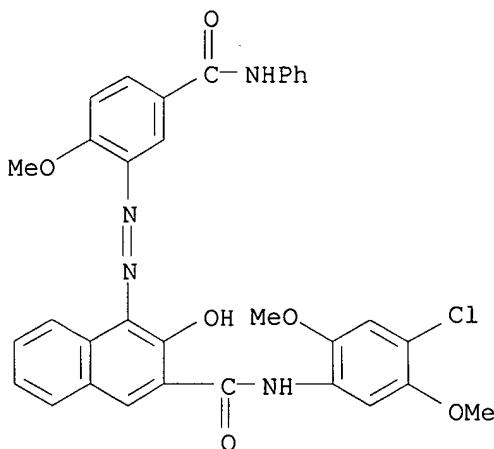
RL: TEM (Technical or engineered material use); USES (Uses)
(in electrophotog. development toner)

IT **5280-68-2**, Pigment red 146

RL: TEM (Technical or engineered material use); USES (Uses)
(in electrophotog. development toner)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 8 OF 9 HCA COPYRIGHT 2003 ACS

129:60562 Electrostatographic toner with uniformly dispersed colorants.
 Kawahara, Emi; Yoshikawa, Masao (Ricoh Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 10133415 A2 **19980522** Heisei, 26 pp. (Japanese).
 CODEN: JKXXAF. APPLICATION: JP 1996-297802 19961021. PRIORITY: JP 1996-118326 19960416; JP 1996-174254 19960613; JP 1996-252476 19960903.

AB In the title toner contg. dispersed pigment, the pigment has the max. diam. of its secondary aggregation $\text{ltoreq} 0.30 \mu\text{m}$ and 2 aggregation particles per $1 \mu\text{m}^2$ cross section of the toner particle.

IC ICM G03G009-08

ICS G03G009-09; G03G009-087

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Electrophotographic toners

(with uniformly dispersed colorant)

IT 81-77-6, C.I.Pigment Blue 60 128-69-8, Pigment Red 224 147-14-8, C.I.Pigment Blue 15 482-89-3, C.I.Pigment Blue 66 1047-16-1
 1325-87-7, C.I.Pigment Blue 1 1328-53-6, Pigment Green 7 2512-29-0, Pigment Yellow 1 2814-77-9, Pigment Red 4 3089-17-6, Pigment Red 202 3564-21-4, Pigment Red 48 3905-19-9, Pigment Red 166 4051-63-2, Pigment Red 177 4118-16-5, Pigment Yellow 147 4531-49-1, Pigment Yellow 17 5045-40-9, Pigment Yellow 109 5280-78-4, Pigment Red 144 5280-80-8, Pigment Yellow 95 5567-15-7, Pigment Yellow 83 5580-57-4, Pigment Yellow 93 5580-58-5, Pigment Yellow 94 5590-18-1, C.I.Pigment Yellow 110 5858-81-1, Pigment Red 57 6041-94-7, Pigment Red 2 6358-31-2, Pigment Yellow 74 6358-87-8, C.I. Pigment Red 38 6410-41-9, Pigment Red 5 6471-49-4, Pigment Red 23 6486-23-3, Pigment Yellow 3 6535-46-2, Pigment Red 112 14295-43-3, Pigment Red 88 17741-63-8, Pigment Violet 37 21416-46-6, Pigment Red 63 22094-93-5, Pigment Yellow 81 51920-12-8, Pigment Red 185 **56396-10-2**, Pigment Red 213 68259-05-2, Pigment Red 220 71566-54-6, Pigment Red 221 71819-76-6, Pigment Red 206 71819-77-7, C.I. Pigment Red 207 79953-85-8, Pigment Yellow 128 82338-76-9, C.I.Pigment Blue 62 84632-65-5, Pigment Red 254

RL: TEM (Technical or engineered material use); USES (Uses)

(contained electrostatog. toner with uniformly dispersed colorant)

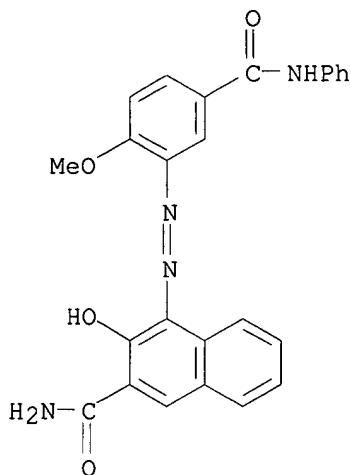
IT **56396-10-2**, Pigment Red 213

RL: TEM (Technical or engineered material use); USES (Uses)

(contained electrostatog. toner with uniformly dispersed colorant)

RN 56396-10-2 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L43 ANSWER 9 OF 9 HCA COPYRIGHT 2003 ACS
 128:174098 Radiation-curable toner particles. De Meutter, Stefaan; Tavernier, Serge; Van Wunsel, Danny (Agfa-Gevaert N.V., Belg.; Xeikon International N.V.). Eur. Pat. Appl. EP 821281 A1 **19980128**, 12 pp.
 DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI. (English). CODEN: EPXXDW. APPLICATION: EP 1997-201977 19970627. PRIORITY: EP 1996-202126 19960726.

AB Toner particles comprises a toner resin, characterized in that the toner resin comprises a radiation-curable resin having a $T_g \geq 35^\circ\text{C}$. The radiation-curable resin is preferably a UV-curable resin and is a member selected from the group consisting of unsatd. polyester/polyurethane acrylate mixts. and unsatd. polyester/polyurethane-vinyl ether mixts. A method and an app. for forming radiation-cured toner images are also provided.

IC ICM G03G009-087
 ICS G03G009-09

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT **Electrographic toners**

Electrophotographic toners

(radiation-curable; contg. unsatd. polyesters and polyurethane acrylates)

IT 147-14-8 947-19-3, 1-Benzoyl-1-hydroxycyclohexane 5102-83-0

5280-68-2 7473-98-5, 2-Hydroxy-2-methyl-1-phenylpropan-1-one

24650-42-8 27136-00-1, DIANOL 33- fumaric acid copolymer 41259-36-3, Dianol 22-ethylene glycol-isophthalic acid-terephthalic acid copolymer 202846-53-5

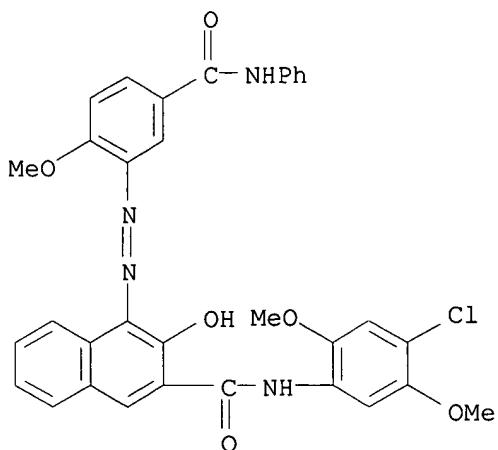
RL: TEM (Technical or engineered material use); USES (Uses)
 (radiation-curable electrostatog. toners contg.)

IT **5280-68-2**

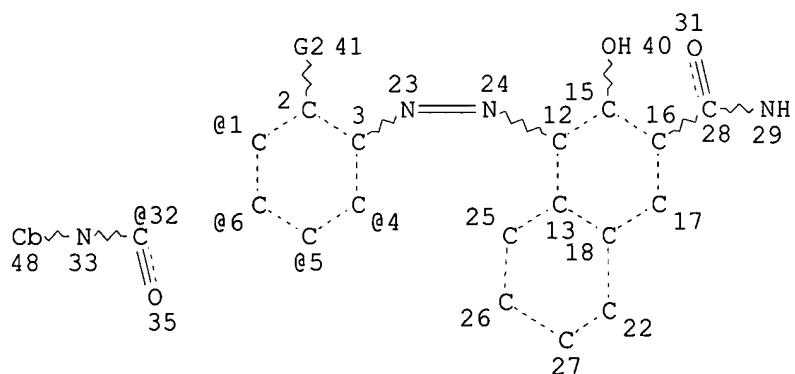
RL: TEM (Technical or engineered material use); USES (Uses)
 (radiation-curable electrostatog. toners contg.)

RN 5280-68-2 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



=> d que stat L50
L6 STR



O~Ak @42 43 Ak~O~Ak @45 46 47

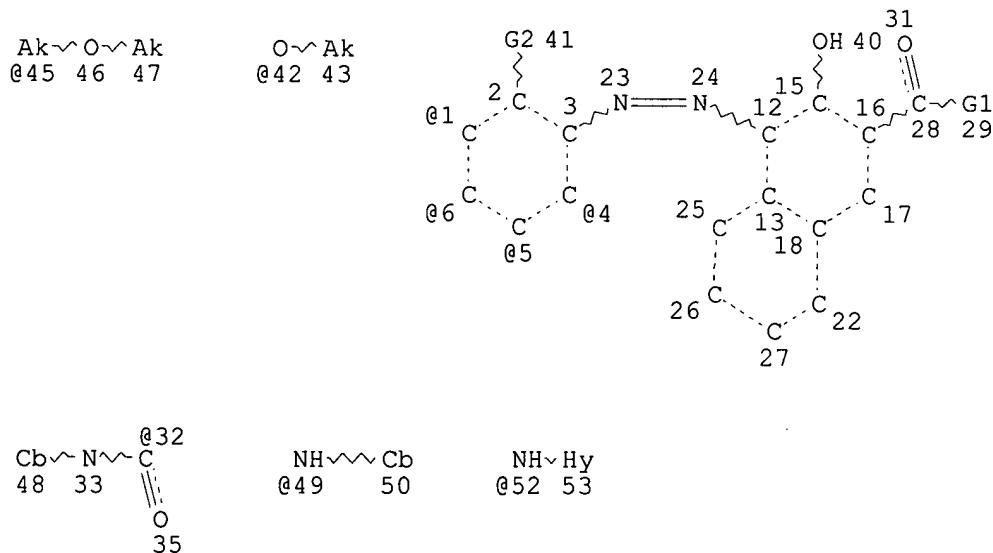
VAR G2=42/45
VPA 32-1/6/5/4 U
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
GGCAT IS MCY UNS AT 48
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 32

STEREO ATTRIBUTES: NONE

L8 175 SEA FILE=REGISTRY SSS FUL L6
L48 STR



VAR G1=NH2/49/52

VAR G2=42/45

VPA 32-1/6/5/4 U

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

GGCAT IS MCY UNS AT 48

GGCAT IS MCY UNS AT 50

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 36

STEREO ATTRIBUTES: NONE

L50 133 SEA FILE=REGISTRY SUB=L8 SSS FUL L48

100.0% PROCESSED 175 ITERATIONS

133 ANSWERS

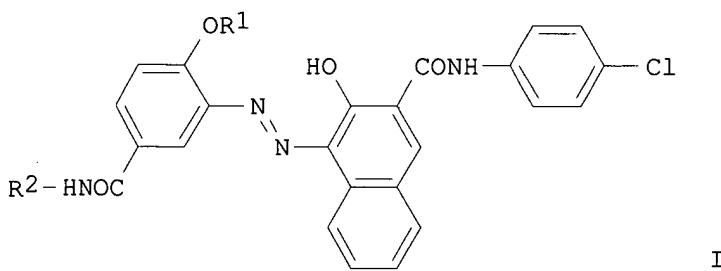
SEARCH TIME: 00.00.01

=> d L57 1-3 cbib abs hitstr

L57 ANSWER 1 OF 3 HCA COPYRIGHT 2003 ACS

133:90728 Insoluble azo pigment compounds and their use. Hikosaka, Michiji;
Ueda, Tetsuya (Tokyo Shikizai Kogyo K. K., Japan). Jpn. Kokai Tokkyo Koho
JP 2000191935 A2 20000711, 7 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1998-366713 19981224.

GI



AB The compds. esp. useful for gravure and offset printing inks, coatings and toners, are of I type azo compds. (R_1 = lower alkyl; R_2 = H, optionally substituted Ph group) or their solvated compds. and have distinctness equal to or better than Pigment Red 146 and a purple shade near to that of Pigment Red 57:1. Thus, coupling of diazotized 2-methoxy-5-(N -phenylcarbamoyl)aniline with 2-hydroxy-3-(N -4-chlorophenylcarbamoyl)naphthalene gave a red pigment.

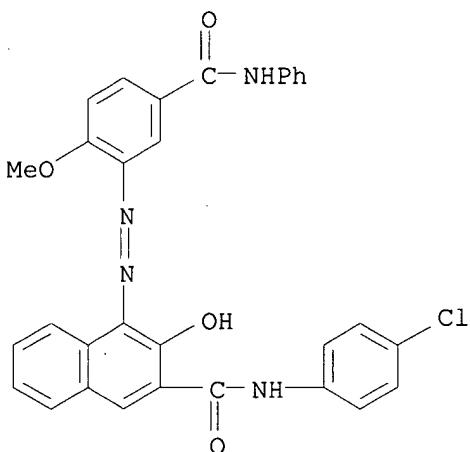
IT **83588-56-1**

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(manuf. of insol. azo pigment compds. and use in printing inks or coatings and toners)

RN 83588-56-1 HCA

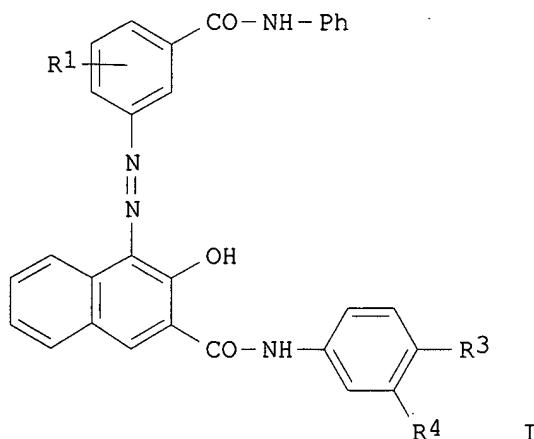
CN 2-Naphthalenecarboxamide, N-(4-chlorophenyl)-3-hydroxy-4-[[2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)



L57 ANSWER 2 OF 3 HCA COPYRIGHT 2003 ACS

132:229469 Electrophotographic magenta toner containing naphthalol derivative colorant. Yoshizaki, Kazui; Kamibayashi, Makoto (Canon Inc., Japan). Jpn. Kokai Tokkyo Koho JP 2000081734 A2 **20000321**, 17 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-252249 19980907.

GI



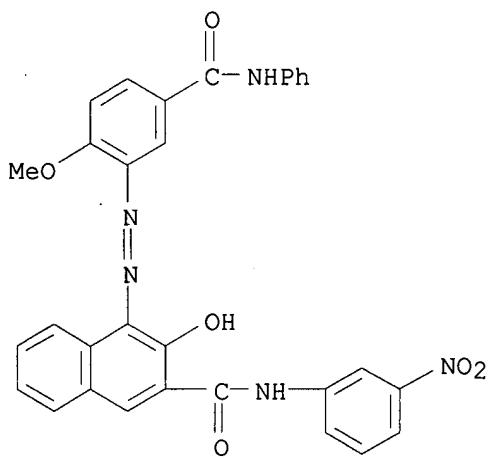
AB The magenta toner with 3-15 .mu.m wt. av. diam. comprises at least a polyester binder resin with 2-25 mg-KOH/g acid value, a magenta colorant I [R1-4 = OMe, halo, H, OH, NO₂, OEt, alkyl, NH₂, N(Me)₂, NHCOMe], and hydrophobicized titanium oxide or aluminum oxide particle additives with 0.01-2 .mu.m av. primary diam. It shows improved hue and color reprodn. quality, providing magenta color images with improved light stability.

IT 6448-96-0, C.I. Pigment Red 31 204326-18-1
261156-70-1

RL: TEM (Technical or engineered material use); USES (Uses)
(electrophotog. magenta toner contg. naphthol deriv. colorant,
polyester binder, and titania or alumina fine particles)

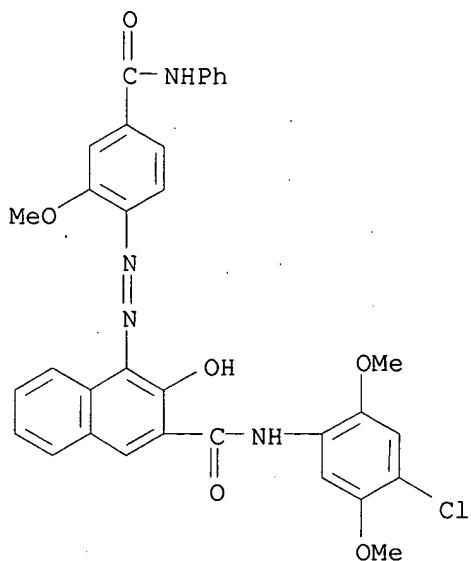
RN 6448-96-0 HCA

CN 2-Naphthalenecarboxamide, 3-hydroxy-4-[[2-methoxy-5-
[(phenylamino)carbonyl]phenyl]azo]-N-(3-nitrophenyl)- (9CI) (CA INDEX
NAME)



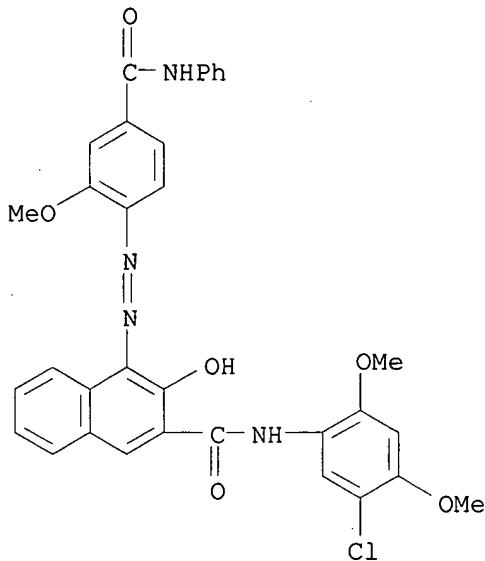
RN 204326-18-1 HCA

CN 2-Naphthalenecarboxamide, N-(4-chloro-2,5-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-4-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



RN 261156-70-1 HCA

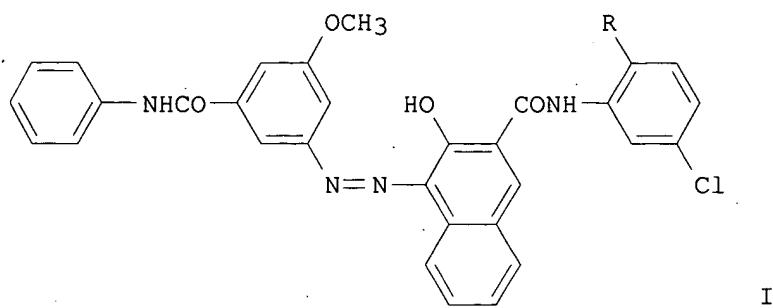
CN 2-Naphthalenecarboxamide, N-(5-chloro-2,4-dimethoxyphenyl)-3-hydroxy-4-[(2-methoxy-4-[(phenylamino)carbonyl]phenyl)azo]- (9CI) (CA INDEX NAME)



L57 ANSWER 3 OF 3 HCA COPYRIGHT 2003 ACS

131:264763 Electrophotographic magenta color toner and process for manufacture thereof. Ogawa, Satoshi; Taketani, Mitsumasa; Nishio, Akitaka (Sanyo Color Works, Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 11272014 A2 19991008 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-73950 19980323.

GI



AB The electrophotog. magenta color toner has structure I (R = Cl-4 alkyl) and 0.05-0.2 .mu.m of D50 av. grain size. The toner has the excellent magenta characteristics.

IT **67990-05-0P**

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(electrophotog. magenta color toner and process for manuf. thereof)

RN 67990-05-0 HCA

CN 2-Naphthalenecarboxamide, N-(5-chloro-2-methoxyphenyl)-3-hydroxy-4-[(2-methoxy-5-[(phenylamino)carbonyl]phenyl]azo]- (9CI) (CA INDEX NAME)

